

DRAFT Environmental Assessment

Deer Creek Addition to the Marshall Creek Wildlife Management Area

Montana Fish, Wildlife and Parks
Region 2 – Missoula



June 2012



**Montana Fish,
Wildlife & Parks**

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1.0 PURPOSE OF AND NEED FOR ACTION

1.1. Proposed Action and Need

FWP purchased the 24,200-acre Marshall Creek Wildlife Management Area (MCWMA) northwest of Seeley Lake from The Nature Conservancy in July, 2011 (Figure 1, 2). This property was a centerpiece of the landmark Montana Legacy Project through which over 310,000 acres of industrial forestland was permanently conserved for fish, wildlife, sustainable timber production, and public access. FWP identified the MCWMA property as one of its highest conservation priorities because the area supports regionally critical fish and wildlife habitat, serves as corridor connecting huge blocks of protected land, and is highly valued by the recreating public.

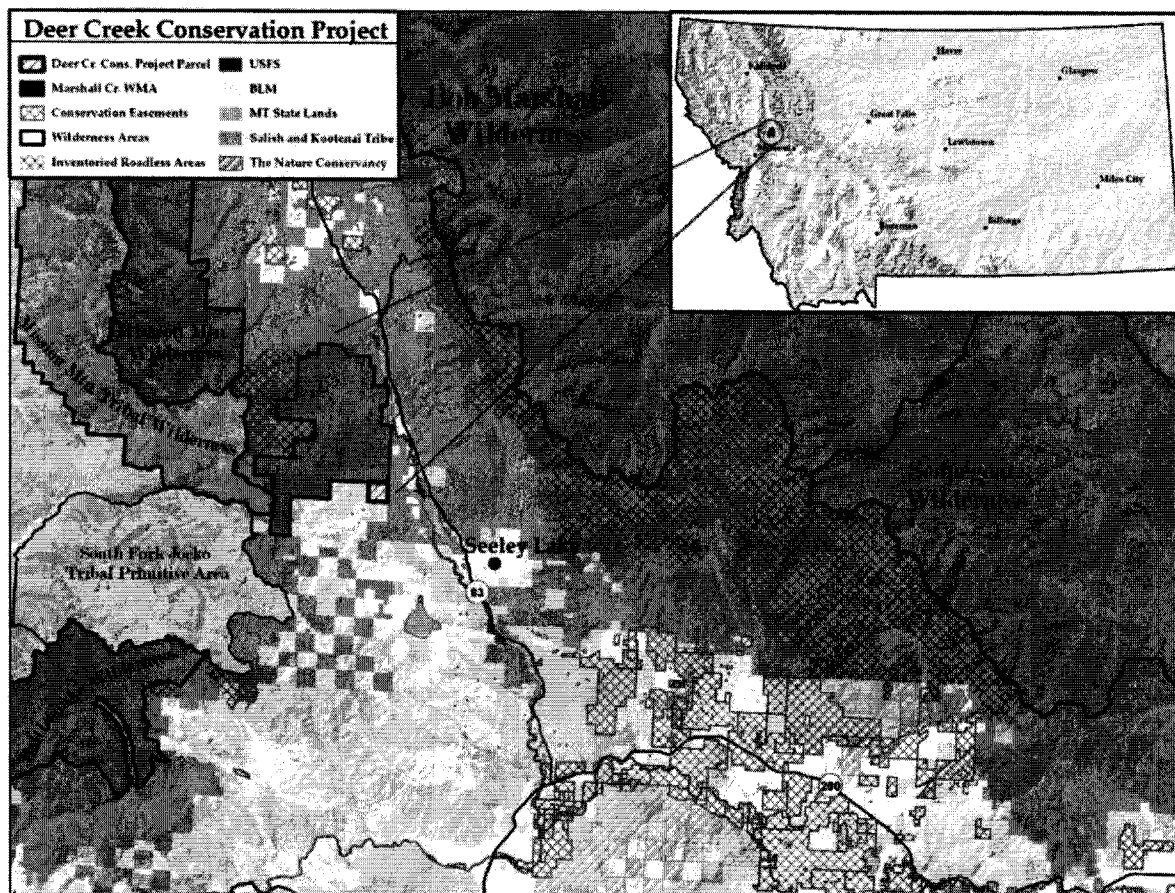


Figure 1. Location of the Marshall Creek WMA and the Deer Creek Conservation Project parcel.

FWP partnered with a diverse group of private, state, and federal organizations to raise the funds necessary to purchase the MCWMA. One of its most significant partners was the U.S. Fish and Wildlife Service's Habitat Conservation Plan (HCP) Land Acquisition Program which granted funds to further the intent of Plum Creek Timber Company's Native Fish HCP. The Clearwater River tributaries within the MCWMA (W. Fork Clearwater, Marshall Creek, and Deer Creek; Figure 2) support one of the most important adfluvial bull trout populations in the region as well as genetically pure populations of native westslope cutthroat trout (WCT). FWP had hoped to completely protect, and begin restoring, these three watershed through purchase of the WMA. Conserving the entire property was an even higher priority

because it contains the most productive, previously unprotected, Canada lynx habitat in the western U. S., was important to grizzly bears, provided exceptional hunting opportunity, and included habitat for >30 other state and federally-listed Species of Concern.

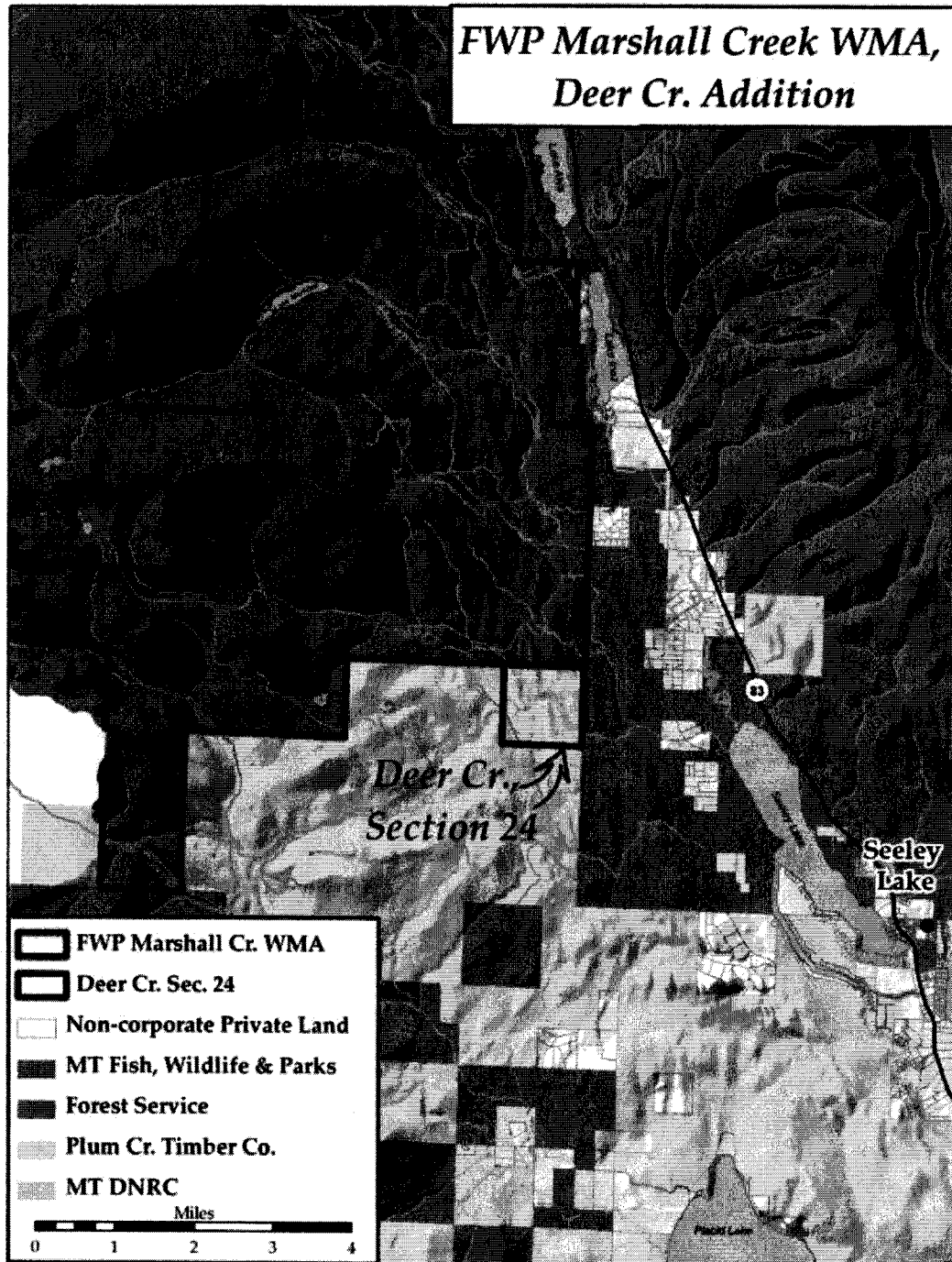


Figure 2. Map of proposed Deer Creek Addition to the Marshall Creek WMA.

Following FWP's purchase of the MCWMA, nearly all of these three Clearwater River tributaries' main stems are owned and managed by public agencies. Unfortunately, one of the remaining critical reaches of Deer Creek (within T17N, R16W Sec. 24; a 1.3-mile riparian corridor; Figures 1, 2) was unavailable for purchase through the Montana Legacy Project. Protecting this final section is one of FWP's highest fisheries conservation priorities because it would prevent development and degradation of this critical stream reach, would allow restoration efforts on and off the parcel to succeed, and would further leverage fisheries conservation investments elsewhere in the Deer Creek watershed.

The subject parcel lies in the core of Hunting District 285 which annually supports >15,000 elk hunter-days (the most of any Blackfoot hunting district) and >20,000 deer-hunter days (high, even by Statewide standards). Hunters also pursue bear, lion, moose, wolf, and upland game birds on the property. The WMA's watersheds, including Deer Creek, support popular stream and lake fisheries that cumulatively provide thousands of angler-days per year. The Deer Creek parcel is part of one of the most heavily used snowmobile trail systems in the country (SnoWest Magazine 2000) and is used throughout the year for hiking, camping, horseback riding, and other outdoor public recreation.

This parcel is owned and is now being actively marketed by Plum Creek Timber Co (PCTC). FWP, in cooperation with Five Valleys Land Trust and the U. S. Fish and Wildlife Service, has developed a conservation strategy that would integrate this parcel into the adjacent MCWMA by fall of 2012. The parcel would be purchased and held by Five Valley's Land Trust during the summer of 2012—FWP would then purchase the parcel from FVLT at appraised value and add it to the existing Marshall Creek WMA in the fall of 2012. Funding for the purchase would come from in-hand grants from the USFWS HCP Land Acquisition Program, the Montana Fish and Wildlife Conservation Trust, and Milltown Bull Trout Habitat Enhancement Fund. FWP is seeking additional funding from the Missoula County Open Space Bond grant program.

This project would permanently protect one of the last remaining privately-held reaches of Deer Creek, consolidate public ownership in a key area for fish and wildlife conservation, and secure additional public access to the MCWMA.

1.2 Objectives of the Proposed Action

- To fulfill the intent of the Montana Legacy Project and FWP Marshall Creek Wildlife Management Area acquisition by conserving an important portion of the Deer Creek riparian corridor—adfluvial bull trout spawning and genetically-pure westslope cutthroat trout habitat.
- To allow FWP the opportunity to successfully restore and maintain fisheries habitat on and adjacent to the Project parcel in Deer Creek.
- To improve the water quality and habitat effectiveness of Deer Creek, which drains directly into Seeley Lake (the town of Seeley Lake's municipal water source).
- To permanently conserve critical Canada lynx, grizzly bear, and other sensitive species' habitat.
- To augment a crucial, and widely recognized, wildlife movement corridor linking the Bob Marshall and Mission Mountains wilderness complexes.
- To permanently provide the recreating public year-round access to a large, scenic, and wildlife-rich parcel near Seeley Lake, popular roads, and trailheads.
- To provide the public the opportunity to hunt, fish, and otherwise recreate on and adjacent to the Project parcel.
- To preserve and enhance public access to the FWP MCWMA and adjacent Lolo National Forest lands.

1.3. Location

The Marshall Creek WMA property lies about four miles northwest of the town of Seeley Lake, in Missoula County, Montana. The subject parcel is adjacent to the southeast corner of the WMA, Lolo National Forest (Forest Service), and Plum Creek Timber Company lands (Figures 1, 2).

Legal Description (general terms):

Missoula County: T17N, R16W Section 24

1.4 Application to FWP Comprehensive Fish & Wildlife Conservation Strategy

The Marshall Creek WMA and subject parcel lie within one of the aquatic conservation focus areas in greatest need of protection as identified in FWP's Comprehensive Fish & Wildlife Conservation Strategy (CFWCS, FWP 2005). The *Blackfoot River Focus Area* begins at the junction of Beartrap and Anaconda creeks near the Continental Divide and flows 132 miles west to its mouth at Bonner, Montana. In 2008, the removal of the Milltown Dam restored the river to flow unimpeded into the Clark Fork River for the first time since 1907. There are a total of 23 aquatic species found within this focus area including the federally listed bull trout and Montana Species of Concern westslope cutthroat trout (Tier 1) and western pearlshell mussel (Tier 2).

The WMA is also within the *Tier 1 Mission/Swan Valley & Mountains Terrestrial Focus Area*, part of the *Montane Forest Ecotype* as described in FWP's CFWCS. Tier 1 terrestrial species use *Wetlands and Riparian Community Types* as major corridors. Wetlands comprise more than 15% of this focus area which consist of fens, peatlands, marshes, vernal pools, and lakes. Most of these wetlands lie within riparian corridors. Many of the Species of Greatest Conservation Need (SGCN) native to the project area lands require large intact landscapes which are both primary habitat and which ensure genetic metapopulation connectivity (Figure 2). The CFWCS specifically identified this Focus Area as deserving Tier 1 status because it "*serves as a major corridor for SGCN.*"

Riparian and wetland communities support the highest concentration of plants and animals in Montana, including the highest density and diversity of breeding birds in Montana. The subject parcel contains nearly 2 miles of high quality riparian habitat along Deer and Fawn Creeks bordered by dogwood, alder, and willows. Conifers, with a streamside understory of broadleaf shrubs, and scattered cottonwood and aspen, dominate most of the riparian habitat in the project area. These conifer riparian habitats may be narrow compared to the broad riparian habitats along the Blackfoot River, but they are critical to maintaining species diversity in the project area, as well as overall water quality in the Blackfoot watershed.

The unique diversity of these cover types provides habitats potentially supporting 160 wildlife species within the proposed WMA. Table 1 lists the CFWCS Tier1 species and Species of Concern that are predicted to occur on or in the vicinity of the property. Evaluation of current habitat conditions within the Marshall Creek WMA property and the probability of occurrence of sensitive species are noted under comments.

Table 1. CFWCS Tier 1 Species and MT Species of Concern present in project area vicinity.

Common Name	Habitat	SOC	CFWCS Tier	Comments
<i>Amphibian (1)</i>				
Western Toad <i>Bufo boreas</i>	Wetlands, lakes, floodplain pools	SOC	1	Suitable aquatic and upland habitats for this species.
<i>Birds (21)</i>				
American Bittern <i>Botaurus lentiginosus</i>	Wetlands	SOC	2	Found in wetlands along the Clearwater River and tributaries.
Bald Eagle <i>Haliaeetus leucocephalus</i>	Riparian forests	SOC	1	Nests at Lake Alva. Uses the Clearwater River and other lakes for foraging. Potential winter roosting sites in conifer forest stands.
Black Swift <i>Cypseloides niger</i>	Cliffs, waterfalls, forages over wetland and riparian habitats	SOC	2	Possible foraging habitat in area.
Black-backed Woodpecker <i>Picoides articus</i>	Conifer forest burns	SOC	1	Found in burned forest nearby, will use the project area after fire.
Boreal Chickadee <i>Poecile gambeli</i>	Spruce fir forest	SOC	2	Found in low numbers in the Seeley-Swan valley.
Cassin's Finch <i>Carpodacus cassinii</i>	Conifer Forest	SOC	2	Verified near area during bird point counts.
Clark's Nutcracker <i>Nucifraga columbiana</i>	Conifer forests	SOC	3	Uses conifer forests in the area, newly-added to the Montana SOC list.
Common Loon <i>Gavia immer</i>	Mountain lakes with emergent vegetation	SOC	1	Lake Marshall used for foraging, Lakes Alva and Inez used for nesting.
Flammulated Owl <i>Otus flammeolus</i>	Conifer forests	SOC	1	Uses conifer forests in the area for nesting and foraging.
Golden Eagle <i>Aquila chrysaetos</i>	Cliffs, open forests, grasslands, subalpine	SOC	2	Suitable nesting and foraging habitat, not verified in area.
Great Blue Heron <i>Ardea herodias</i>	Wetlands, riparian	SOC	3	Nesting rookery at Lake Inez, foraging habitat in area
Great Gray Owl <i>Strix nebulosa</i>	Conifer forests	SOC	1	Species documented on the project area, nearest documented nest is 13 miles NE.
Hooded Merganser <i>Lophodytes cucullatus</i>	Riparian forests	PSOC	2	Found along Clearwater River
Northern Goshawk <i>Accipiter gentiles</i>	Mixed conifer forest	SOC	2	Uses conifer forests in the area for nesting and foraging.
Olive-sided Flycatcher <i>Contopus cooperi</i>	Early seral forest/shrub patches, burned forest		1	Documented in suitable habitat throughout the area.
Peregrine Falcon <i>Falco peregrinus</i>	Cliffs (nesting), riparian forests & wetlands (foraging)	SOC	2	Riparian and wetland habitats potentially used for foraging by migrating birds.
Pileated Woodpecker <i>Dryocopus pileatus</i>	Conifer forests with large trees	SOC	2	Verified on the area, suitable habitat.
Trumpeter Swan <i>Cygnus buccinator</i>	Shallow lakes with submerged and emergent vegetation and low disturbance levels.	SOC	1	Reintroduction programs in nearby Mission and Blackfoot Valleys, habitats for this species found primarily along the Clearwater River.
Veery <i>Catharus fuscscens</i>	Riparian	SOC	2	Found along the Clearwater River.

Common Name	Habitat	SOC	CFWCS Tier	Comments
Western Screech-Owl <i>Megascops kennicottii</i>	Riparian forests	PSOC	3	Potential habitat, not verified.
White-tailed Ptarmigan <i>Lagopus leucura</i>	Alpine	SOC	2	Present in Swan Mountains and probably present in Mission mountains.
<i>Fish (2)</i>				
Bull Trout <i>Salvelinus confluentus</i>	Mountain streams, rivers, lakes	SOC	1	Project area one of the key spawning and rearing areas for adfluvial population in Clearwater drainage.
Westslope Cutthroat Trout <i>Oncorhynchus clarkii lewisi</i>	Mountain streams, rivers, lakes	SOC	1	Abundant populations in project area with both stream-resident and migratory components, and high genetic purity.
<i>Mammals (12)</i>				
Canada Lynx <i>Lynx Canadensis</i>	Subalpine conifer forests	SOC	1	The subject parcel contains some of the highest quality, currently unprotected, Canada lynx habitat in the western U.S.
Fisher <i>Martes pennanti</i>	Mixed conifer forests	SOC	2	Fisher are resident within the proposed WMA.
Fringed Myotis <i>Myotis thysanodes</i>	Riparian and dry mixed conifer forests	SOC	2	Potential habitat, but insufficient surveys to determine presence or absence in project area.
Gray Wolf <i>Canis lupus</i>	Generalist	SOC	1	Commonly observed within the proposed WMA.
Grizzly Bear <i>Ursus arctos horribilis</i>	Generalist	SOC	1	The subject parcel provides important post-emergence foraging habitat and serves as a movement corridor.
Hoary Bat <i>Lasiurus cinereus</i>	Riparian and conifer forests	SOC	2	Uses mature trees (conifer or broadleaf) for roosting. Forages over forest canopy, wetlands, and water.
Hoary Marmot <i>Marmota caligata</i>	Alpine	PSOC	1	Found in Mission Mountains, not yet verified on the property.
Northern Bog Lemming <i>Synaptomys borealis</i>	Wetlands (peatlands)	SOC	1	Potential habitat present, wetlands in area have not yet been surveyed for the species.
Silver-haired Bat <i>Lasionycteris noctivagans</i>	Conifer and riparian forests	PSOC	2	Suitable habitat, presence not yet verified.
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	Caves and mines (roosting), riparian, wetlands, forests (foraging)	SOC	1	Project area has foraging habitat, but no known roosting habitat.
Wolverine <i>Gulo gulo</i>	Conifer forests	SOC	2	Species routinely detected on the property and the WMA; project area falls within a critical habitat linkage zone between the Mission Mountains and Bob Marshall Wilderness Complex.
Yuma Myotis <i>Myotis yumaensis</i>	Riparian and mixed forests near water	PSOC	2	Potential habitat, not verified (difficult to identify).
<i>Mollusk (1)</i>				
Western Pearlshell <i>Margaritifera falcata</i>	Mountain streams/rivers	SOC	1	Recent surveys indicate that the Clearwater River and tributaries provide some of the highest quality western pearlshell habitat in Montana.

1.5 Authority and Responsibility

FWP has the authority to purchase lands that are suitable for game, bird, fish or fur-bearing animal restoration, propagation or protection; for public hunting, fishing, or trapping areas; and for state parks and outdoor recreation, per Montana statute Section 87-1-209, Montana Code Annotated (MCA).

Funding for the proposed acquisition would come from several sources: the U.S. Fish and Wildlife Service's Habitat Conservation Plan Land Acquisition Program, the Montana Fish and Wildlife Conservation Trust (FWCT), the Milltown Bull Trout Habitat Enhancement Fund, and (potentially) the Missoula County Open Space Bond grant program. U.S. Fish and Wildlife Service's Habitat Conservation Plan grants may be spent Per 87-1-709 MCA, wherein FWP has the power to acquire lands with federal funds for the one or more of the following purposes: a) protecting or maintaining habitat conditions for fish or wildlife species by placing land under public control or ownership, b) developing or improving habitat conditions to enhance carrying capacity, and/or c) providing public access for the use of fish and wildlife resources.

To enable application of these federal grant funds, the State of Montana or private entities must provide incremental matching funds. The FWCT, Milltown Bull Trout Habitat Enhancement Fund, and FVLT have committed the funds necessary to match the above-described federal grants.

Per state law, 87-1-201(9) MCA, FWP is required to implement programs that address fire mitigation, pine beetle infestation, and wildlife habitat enhancement giving priority to forested lands in excess of 50 contiguous acres in any state park, fishing access site, or wildlife management area under the department's jurisdiction. FWP would develop and implement forest management plans for this property to meet the intent of this statute as it has for the larger MCWMA.

FWP is also required to establish a maintenance account for property acquisitions (§ 87-1-209, MCA). Such an account would be used for weed maintenance, fence installation or repair of existing fences, erosion control, streambank stabilization, erection of barriers to preserve riparian vegetation and habitat, and planting of native trees, grasses, and shrubs for habitat stabilization. Such maintenance activities should be consistent with the Good Neighbor policy. Funds for this maintenance account are available and obligated to this project.

2.0 ALTERNATIVES

2.1. Alternative A – Proposed Action: FWP would purchase 640 acres in the Deer Creek drainage via fee title from Five Valleys Land Trust and add them to the existing and adjacent Marshall Creek Wildlife Management Area

FWP proposes to acquire approximately 640 acres in the Deer Creek drainage of the Clearwater watershed. FWP proposes to use a diverse funding package to permanently protect the Deer Creek riparian corridor and manage it as part of the adjacent 25,000-acre Marshall Creek Wildlife Management Area.

The USFWS, U. S Forest Service Forest Legacy Program, The Nature Conservancy, The Blackfoot Challenge, The Montana Wildlife Federation, The Clearwater Resource Council, Montana Trout Unlimited, The Rocky Mountain Elk Foundation, Hellgate Hunters and Anglers, Pyramid Mountain Lumber, and the Missoula County Commission all explicitly supported FWP's effort to acquire and conserve lands in the Deer Creek watershed in 2011. This proposal represents the culmination of that initial effort; by acquiring one of the remaining vulnerable reaches of this important native trout fishery the primary goal of this monumental conservation effort would have been achieved.

The subject parcel is being actively marketed and is at high risk of being sold on the private market for residential development. Five Valleys Land Trust has agreed to act as a bridge buyer—purchasing and holding the land until FWP can obtain the funding and approvals necessary to purchase the property (at FVLT's cost). Plum Creek has entered into a purchase and sale agreement with FVLT thus temporarily removing the land from the market pending sale to FWP *via* FVLT. FWP purchase of the property is explicitly contingent upon securing all necessary funding and approvals.

FWP would conduct all due-diligence, pay for all federal appraisals and closing costs, comply with all necessary public and environmental review, and obtain all necessary approvals prior to closing. The parcel would then be incorporated into the existing MCWMA. FWP has funds to immediately begin inventory and restoration work on the parcel including riparian habitat restoration, riparian road mitigation, and water control structure improvements.

The subject parcel is not currently enrolled in the FWP Block Management or other public access programs. Should the parcel become part of the larger MCWMA, it would be permanently accessible to the public for hunting, fishing, hiking, horseback riding, snowmobiling, and general enjoyment year-round. In addition, Deer Creek supports important recreational fisheries elsewhere in the Clearwater chain of lakes. Acquisition of the parcel would secure important public access to the MCWMA from the south (Seeley Lake) side and provide public access to adjacent Lolo National Forest lands (Figure 2).

FWP has drafted an interim management plan for the MCWMA that is attached as *Attachment A*. The subject parcel, if acquired, would be managed subject to this management plan. The interim management plan would direct FWP management of the WMA until habitat assessments, infrastructure inventories, and public scoping are completed. A comprehensive management plan would be drafted when these more complete data are available.

The total purchase price for the 640 acres is expected to be \$1.28 million, but would be determined by fair market appraisal. The preliminary routine maintenance budget for the property is expected to be \$1,500 annually. Funds to support larger-scale capital and restoration activities are also available. Property taxes are expected to be \$495 annually (See budget section of the Management Plan for details).

2.2 Alternative B – No Action: FWP would not purchase the Deer Creek Property

Under the No Action Alternative, FWP would not acquire the 640-acre property. Plum Creek would then continue to market the property for private sale and development.

3.0 AFFECTED ENVIRONMENT AND PREDICTED CONSEQUENCES

3.1 LAND USE

In the late 1800's a "checkerboard" (every other section) of federal land in the upper Clearwater was granted to the railroad companies. Those federal in-holdings were then exchanged with the Anaconda Company in the 1950's to consolidate Forest Service ownership within what was later to become the Bob Marshall Wilderness Complex. Since then, the contiguous private lands have been managed by a series of corporations for timber production, including the property's current owner, Plum Creek Timber Company.

Most timbered stands on the property have been actively managed for timber production over the past 50 years and are in some stage of regeneration. Most of the roads on the subject parcel, which were originally established for timber harvesting, are currently closed to public wheeled motorized use.

Public recreation has been allowed on the property by Plum Creek Timber Company for many years. The predominant recreational activities include snowmobiling, hunting, fishing, trapping, and hiking. Roads and water control structures are the only permanent developments present on the property.

Proposed Action: The subject parcel would be included in the adjacent Marshall Creek WMA and would be managed in a manner consistent with that of other WMAs owned and managed by FWP. Upon acquisition, FWP would conduct a detailed vegetation (including timber) assessment, a roads and water control structure inventory, and FWP would solicit public input regarding future recreational-use management. Timber management activities would be conducted to maintain and restore forest health and improve upland wildlife habitat with an emphasis on recruiting mature multi-storied stands, where appropriate. Firewood cutting would continue to be limited to downed trees outside of riparian corridors and managed by FWP-issued permits.

Unlike FWP WMAs that are managed for big game winter range, Marshall Creek WMA is open to the general public year-round. Wheeled motorized vehicles are restricted to a designated open road system and FWP does not expect to significantly modify the current open road system on the subject parcel (Figure 2) nor restrict winter snowmobile recreational use of the property.

Any mineral interests owned by PCTC and attached to the parcel would be transferred to FWP. Oil and gas interests are owned by Meridian Minerals Company, and would not transfer to the State of Montana. All hard rock mineral rights would transfer to the State of Montana. A minerals investigation for the proposed Marshall Creek WMA was conducted by the Montana Bureau of Mines and Geology in April 2010 indicates that the potential for oil, gas, or mineral development is so remote as to be negligible. Water rights attached to the property would also be transferred to FWP.

There are no active grazing leases on the property and FWP does not anticipate introducing livestock grazing. FWP would install appropriate informational signage at the main access points to the property to communicate property boundaries, accessible roads, FWP regulations, and general site information.

The resort community of Seeley Lake is growing faster than any other area in the Blackfoot Watershed and development pressure is especially acute in the upper Clearwater Valley where the subject parcel is located. FWP's purchase of this property would prevent any future subdivision or development of the site that could degrade fish and wildlife habitat and limit public access to and through the property.

No Action: Under the No Action Alternative, PCTC would continue to offer the property on the open market. Prospective buyers would likely purchase the property for residential development. Current public recreational access to the property would not be guaranteed if the property was sold to a private entity. Residential development would severely, and permanently diminish fish and wildlife habitat quality on the parcel and on the adjacent MCWMA.

3.2 VEGETATION

The subject parcel WMA is almost entirely forested. Elevations range between 4,000 and 4,600 feet. Forests consist of spruce-fir types and western larch in wetter sites while Douglas fir, and lodgepole pine types predominate on the drier aspects. Significant stands of aspen and black cottonwood are scattered throughout the parcel. Most upland forested stands have been harvested and are in some stage of regeneration. The riparian corridors have not been mechanically treated.

This property contains approximately 2 miles of high quality riparian habitat along Deer and Fawn Creek. Conifers, with a streamside understory of broadleaf shrubs, and scattered cottonwood and aspen, dominate most of the riparian habitat in the project area. Riparian buffers were maintained by PCT along

these perennial streams by limiting harvest of timber in those areas. Noxious weed infestations on the property are limited. Spotted knapweed (*Centaurea maculosa*) and Canada thistle (*Cirsium arvense*) are the most prevalent weed species and they are largely limited to roadsides and disturbed sites.

Proposed Action: FWP acquisition of the subject parcel and its subsequent inclusion in the adjacent Marshall Creek WMA would prevent impacts from timber harvest within riparian corridors, eliminate concomitant effects of sedimentation, runoff, and rises in water temperature from removal of riparian vegetation, and provide opportunity for future riparian corridor restoration activities. Regionally, riparian corridors are most threatened by residential development and industrial timber harvest activities. In addition, mature and complex boreal forest stands important for lynx and other wildlife would be recruited and conserved.

Fire suppression on the subject parcel would fall under the DNRC fire protection jurisdiction. Wildfires would be immediately suppressed upon detection. In an attempt to prevent human-caused ignitions, FWP may institute temporary measures to progressively restrict open campfires and public access to the property if and as summer-fall fire danger intensifies in some years.

FWP has completed a weed inspection per 7-22-2154(1) MCA, which requires nonfederal government agencies to obtain a weed inspection by the county weed district and requires the development of a weed management plan to ensure compliance with district noxious weed management programs. Through the implementation of FWP's 2008 Integrated Noxious Weed Management Plan (Available at <http://fwp.mt.gov/content/getItem.aspx?id=32626>), FWP would comply with district programs and develop the property's weed management plan by the fall of 2012.

FWP anticipates a decrease in noxious weeds and an improvement in overall habitat health following the Plan's implementation. FWP would actively treat weeds through the use of herbicides and biological control agents. As an additional preventive measure, FWP would confine wheeled motorized traffic to the previously described road system and would otherwise avoid unnecessary disturbance of the soil surface.

No Action: If FWP does not purchase the property critical aquatic and terrestrial habitat may not be conserved, the property may be sold privately and subdivided, public access to and through the property may be lost and the existing conifer forest and riparian areas could be disrupted by development activities. It is difficult to predict the extent new ownership would affect existing vegetation and wildlife habitat resources since potential future landowner activities are unknown but FWP anticipates fish and wildlife habitat would be degraded.

3.3 WILDLIFE SPECIES

The Marshall Creek WMA provides critical habitat for Canada lynx and grizzly bears, as well as habitat for more than 37 Montana Species of Concern (See Table 1) and over 120 other native species including elk, white-tailed and mule deer, moose, and a variety of nongame birds and mammals. The subject property lies within a matrix of protected State and federal lands and is within a recognized corridor linking the Bob Marshall/Scapegoat and Mission Mountains wildland complexes.

Canada Lynx

Prior to its listing as a federally Threatened species in 2000, very little was known about the U.S. distribution and ecology of the Canada lynx. Over the last decade, the U.S. Forest Service Rocky Mountain Research Station has coordinated a Canada lynx research program intended to define the species' distribution, collect ecological data, and develop predictive habitat models for the species. They found that lynx in the Rocky Mountains now occur in only a few remaining areas. One of the species'

strongholds, the most southern, and likely most significant in the lower 48 states exists in the upper Clearwater watershed including the subject parcel.

Between 1997 and 2010, over 60 Canada lynx were fitted with tracking collars in the Clearwater. The resulting data highlighted the quality and importance of Canada lynx habitat within the proposed Marshall Creek WMA. The subject parcel has been heavily used by Canada lynx throughout the study (Figure 3).

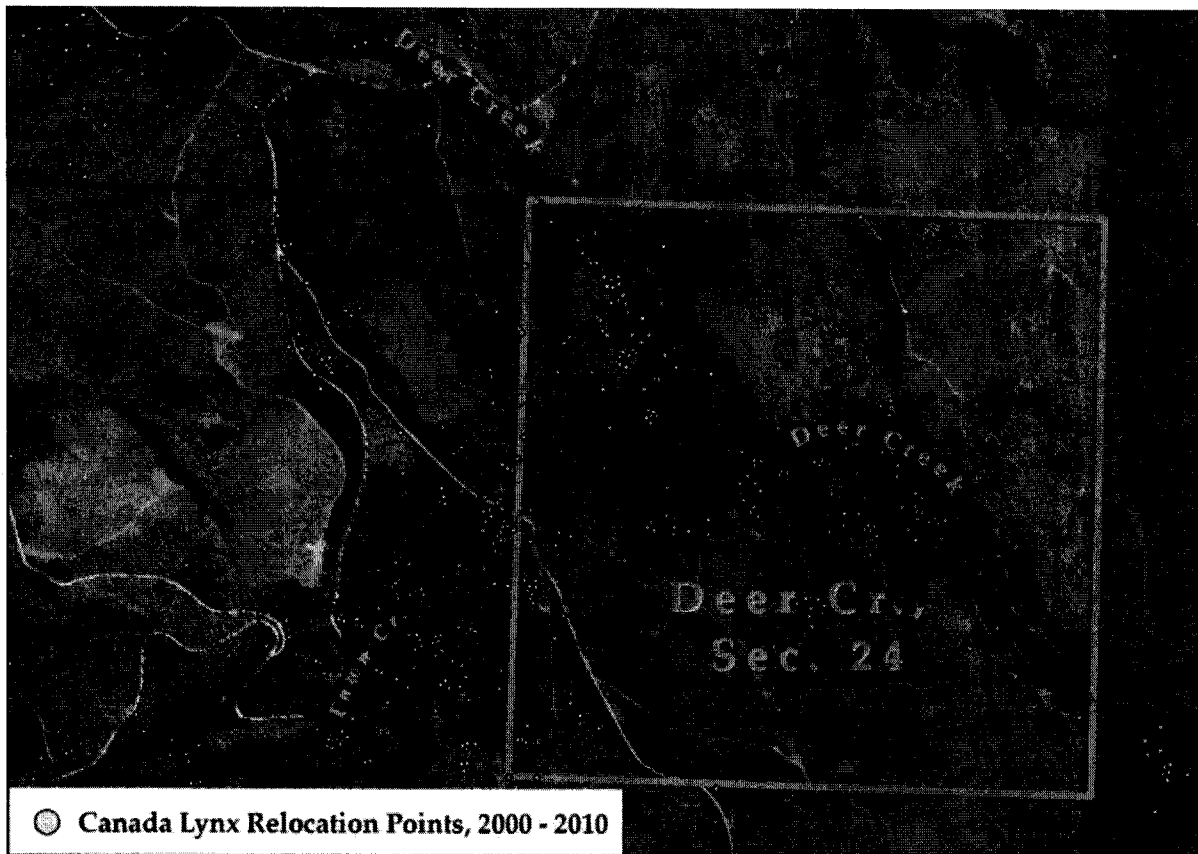


Figure 3. Canada lynx relocations, Deer Creek, 2000 – 2010.

Grizzly Bear

Much of the proposed Marshall Creek WMA is within the Northern Continental Divide Ecosystem Grizzly Bear Recovery Area. Grizzlies heavily use the subject parcel for foraging post-emergence through fall. FWP data indicate particularly high use of the project area's riparian corridors and abundant huckleberry, serviceberry, chokecherry, and hawthorn present in forest openings and regenerating harvest units. The parcel within a recognized and highly important grizzly bear linkage zone.

Game Species

Elk use the subject parcel year-round and it supports important populations of mule deer, white-tailed deer, moose, black bear, mountain lions, wolves, and mountain grouse. The property lies within deer/elk Hunting District 285 which supports tens of thousands of hunter-days annually.

Other Species

The subject parcel lies along a major raptor migration route. Forest and riparian areas on the project area provide important foraging and roosting habitat for migrating forest hawks, including northern goshawks, Cooper's hawks (*Accipiter cooperii*), and sharp-shinned hawks (*Accipiter striatus*). There are several active bald eagle nests adjacent to the property, some within a few hundred yards of the property's boundary. Additional avian species expected to be present include: brown creeper (*Certhia Americana*), boreal chickadee, chestnut-backed chickadee (*Poecile rufescens*), evening grosbeak (*Coccothraustes vespertinus*), fox sparrow (*Passerella iliaca*), golden-crowned kinglet (*Regulus satrapa*), gray jay (*Perisoreus Canadensis*), hermit thrush (*Catharus guttatus*), pine grosbeak (*Pinicola enucleator*), ruby-crowned kinglet (*Regulus calendula*), varied thrush (*Ixoreus naevius*), Townsend's warbler (*Dendroica townsendi*), and winter wren (*Troglodytes troglodytes*).

Black bears (*Ursus americanus*), mountain lions (*Puma concolor*), marten (*Martes americana*), bobcat (*Lynx rufus*), and a host of other wildlife species are common. In Montana, boreal forest-associated species include vagrant shrew (*Sorex vagrans*), montane shrew (*Sorex monticolus*), southern red-backed vole (*Myodes gapperi*), red-tailed chipmunk (*Tamias ruficaudus*), deer mouse (*Peromyscus maniculatus*), northern flying squirrel (*Glaucomys sabrinus*), northern water shrew (*Sorex palustris*), red squirrel (*Tamiasciurus hudsonicus*), long-tailed vole (*Microtus longicaudus*), montane vole (*Microtus montanus*), and northern bog lemming.

Amphibian species include: boreal toad (*Bufo boreas*), long-toed salamander (*Ambystoma macrodactylum*), Columbia spotted frog (*Rana luteiventris*), and Rocky Mountain tailed frog (*Ascaphus montanus*) (K. DuBois, FWP, personal communication 2008).

Proposed Action: This project would ensure the protection of important habitat that could contribute to the continued occupancy and recovery of several imperiled terrestrial wildlife species including wide-ranging native carnivores such as grizzly bears, Canada lynx, wolverine, and fisher. FWP acquisition of the parcel would help ensure connectivity among and the biological effectiveness of the nearby Bob Marshall, Scapegoat, and Mission Mountain wildland complexes. The property is also within a linkage zone identified as one of the crucial connections within the Yellowstone-to-Yukon corridor essential to maintaining the genetic viability of grizzly bears within and between the U.S. and Canada.

FWP acquisition of the property would protect and enhance riparian corridors important to migratory songbirds, small mammals, amphibians, and fish (fish species are described in Section 3.4). Furthermore, FWP would maintain current hunting, trapping, snowmobiling, and wildlife viewing opportunities.

No Action: If no action were taken by FWP critical habitat for a host of game and nongame wildlife species could be degraded or lost, an important corridor between the Bob Marshall/Scapegoat and Mission Mountains wildland complexes could be compromised, and the subject lands would be put at greater long-term risk of subdivision and development. Furthermore, historic public access to the property and through it to large tracts of adjacent public lands could be lost. This would restrict hunter access and therefore affect FWP's ability to manage game species on and adjacent to the property.

If PCTC sells the property to another buyer, risks of loss of habitat and public access are unknown; future resource management and the provision of public access would be dependent on the desires of the new property owner(s). Important wildlife habitat and public access would likely be lost or degraded.

3.4 FISHERIES AND AQUATIC RESOURCES

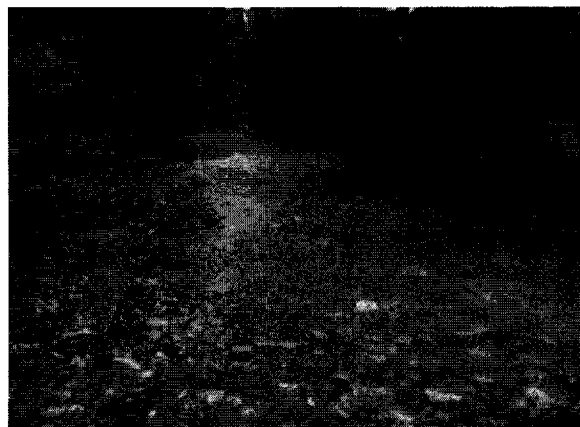
The Clearwater Lake, River, and tributary system provides habitat for the complete life cycle of many native aquatic species, including self-sustaining populations of two imperiled native fish: westslope cutthroat trout, a Species of Special Concern in Montana and petitioned for listing under the ESA; bull trout, a federally threatened species under the Endangered Species Act; and western pearlshell mussel, a Species of Special Concern in Montana. Other native fish species present include mountain whitefish (*Prosopium williamsoni*), redbside shiner (*Richardsonius balteatus*), peamouth (*Mylocheilus caurinus*), longnose dace (*Rhinichthys cataractae*), sculpin (*Cottus* spp.), longnose sucker (*Catostomus catostomus*), largescale sucker (*Catostomus catostomus*), and northern pikeminnow (*Ptychocheilus oregonensis*).

The Clearwater system supports adfluvial life history forms of both these native species (bull and westslope cutthroat trout). Adfluvial bull trout exhibit wide-ranging migratory behavior that includes six lakes, however spawning and rearing only occurs at discrete sites in colder tributaries, including Deer Creek. Adfluvial westslope cutthroat trout (WSCT) also use extensive areas of the watershed including the lakes, river and natal headwater areas high in the tributaries. The WSCT of the upper watershed exhibit a very high level of genetic purity (most populations exceed 99% genetic purity) and most tributaries support stream-resident, as well as adfluvial WSCT. Life histories of other native fish and aquatic species are variable, but these species also play a critical role in the ecosystem.

Westslope Cutthroat Trout

Westslope cutthroat trout (WSCT), a species of special concern in Montana have declined over much of their historic range within the last century. Reasons for this decline include habitat loss and degradation, genetic introgression with introduced rainbow trout and Yellowstone cutthroat trout, over-harvest, and competition with introduced brook trout and brown trout. In the Clearwater River system, *WSCT occupy > 90% of their historic range*. The Blackfoot Watershed also supports one of the larger migratory metapopulations of WSCT in Montana, and the Clearwater drainage supports its major adfluvial components. The Clearwater supports a nearly basin-wide distribution of WSCT, although many of the migratory populations are well below carrying capacity.

WSCT stocks include migratory (*fluvial, adfluvial*) and non-migratory (*resident*) fish. Both rely on high quality tributary habitats for spawning, rearing, and over-wintering and often inhabit the same stream. Fluvial WSCT spend their early life stages in small streams, and then migrate to rivers where they mature and grow much larger than resident fish before returning to natal tributaries to spawn. Adfluvial WSCT migrate to lakes to mature before they return to their natal tributaries to spawn. In the Blackfoot Basin, fluvial WSCT occupy the river system, whereas adfluvial fish occupy primary the Clearwater Chain of Lakes. Resident WSCT trout generally inhabit small headwater streams across the basin, including some physically isolated from the river.



Bull Trout

To assist in bull trout recovery, the Montana Bull Trout Recovery Plan established recovery goals for the greater Blackfoot Watershed including the Clearwater River system. These recovery goals are:

1. Maintain self-reproducing migratory fish with access to tributary streams and spawning areas in all core area watersheds.
2. Maintain the population genetic structure throughout the watershed.
3. Maintain and increase the connectivity between the Blackfoot River and its tributaries.
4. Establish a baseline of redd counts in all drainages that presently support spawning migratory bull trout.
5. Maintain a count of a least 100 redds or 2,000 individuals in the Blackfoot drainage with an increasing trend thereafter.

Recent FWP telemetry studies and population surveys (FWP 1995-2007 unpublished data) have confirmed the importance of the upper Clearwater as the key spawning and rearing habitat for migratory bull trout in the greater Blackfoot Watershed.

The subject parcel is entirely within the federally designated "Clearwater River and Lakes Bull Trout Core Area," a primary focal area of the Clark Fork River Recovery Unit of the USFWS's Bull Trout Draft Recovery Plan (<http://www.fws.gov/pacific/bulltrout/Recovery.html>). This recovery unit identified a major recovery action as "minimize recreational development in bull trout spawning and rearing habitat." Specifically mentioned is the expansion of new golf courses, ski areas, campgrounds, and second home or other recreational developments in the corridors of bull trout spawning and rearing streams, all of which are potential threats to bull trout within the Clearwater. In addition, the Recovery Plan states that as a recovery action for the Upper Clark Fork recovery unit to "use all available conservation programs and regulations to protect and conserve bull trout and bull trout habitats through provisions of such things as purchase of conservation easements." Provision of fish passage at main stem river dams and obstructions are also mentioned.

Mountain Whitefish

Mountain whitefish have not been a target species for monitoring or evaluations, due to a general inability to handle the species without causing high mortality. Both adult and juvenile mountain whitefish are found throughout the lower reaches of large tributaries, in the main stem Clearwater lakes and river system. Like other species in the salmonid family, mountain whitefish require clear, cold streams where schools feed in riffles. In the main stem Clearwater system, whitefish move out of the river reaches that are naturally warmed by surface outflow from lakes, and move into larger tributaries or the cooler depths of lakes. The species is one of our most important native fish from an ecological perspective due to its high forage value for aquatic and terrestrial predators.

Western Pearlshell

The western pearlshell is a native freshwater mussel species that inhabits coldwater streams on both sides of the continental divide. This species is typically found in trout streams and rivers, particularly in drainages where the westslope cutthroat trout (its native fish host) also occurs. The distribution and abundance of this species has declined dramatically in Montana over the past century. However, the middle portion of the Clearwater system supports one of the best remaining metapopulations in the state (Dave Stagliano, Montana Natural Heritage Program).

Deer Creek

Deer Creek is a large, third-order freestone tributary drainage that flows directly into Seeley Lake. This stream supports adfluvial and stream-resident WSCT, the predominant species. Genetic testing in several reaches indicates high genetic purity for this WSCT population (99%-100% WSCT genetic contribution). Bull trout have also been consistently detected in this watershed. Deer Creek supports relatively intact riparian stream corridors, but has been impacted by large-scale timber management in headwaters and uplands. This stream has high potential for bull trout recovery and enhanced WSCT populations once watershed disturbance is mitigated.

Previous and Current Fisheries Restoration Efforts

Major efforts are underway to enhance native fish populations in the Clearwater drainage. For example, FWP and partners have worked to remove main stem fish passage obstructions, remove or improve existing road systems, and enhance protection of native trout populations through appropriate angling regulations. Fish passage improvements on the three primary obstructions on the Clearwater River occurred in 2010-11, including the removal or modification of the Lake Inez Fish Barrier (Emily-A dam). Fishing regulation changes were enacted to increase protection of key bull trout spawning and rearing tributaries, which complement current regulations encouraging northern pike removal (since 1990s). The Seeley Lake community has also recently developed a citizen-driven lake and stream water quality monitoring program. Two irrigation ditches have been screened to eliminate the loss of fish from Morrell Creek, a nearby and important bull trout stream in the Clearwater Drainage. The screening was done cooperatively with irrigators, USFWS, Trout Unlimited, Blackfoot Challenge, and FWP.

Proposed Action: FWP acquisition of the subject parcel would protect more than 2 miles of native fish-bearing water in Deer Creek, a major tributary of the upper Clearwater lakes and river system.

The acquisition would facilitate the expansion of an active public/private stream restoration program to those lands. FWP anticipates conducting numerous riparian restoration projects including the removal of water control structures and redundant roads that contribute sediment to streams. Active restoration of Deer Creek would protect and improve critical bull and westslope cutthroat trout spawning and rearing areas, and prime habitat for mountain whitefish and western pearlshell mussel.

Acquisition would also further leverage ongoing partners' work adjacent to subject lands. This acquisition would complement ongoing efforts to ensure bull trout and WCT persistence and recovery within the Clark Fork River Basin.

No Action Alternative: If FWP decides not to purchase the property, it is unknown how fisheries and water resources (riparian areas, wetlands) would be affected by another buyer's future management after PCTC sells the property.

Habitat fragmentation, alterations, and degradation associated with development and non-sustainable natural resource extraction are major threats to native salmonids. Widely divergent, uncoordinated, and inconsistent management of the fisheries and water resources if the property were subdivided or developed would likely result in impacts to the watershed's outstanding natural resource values and imperiled species, including native bull and westslope cutthroat trout, and mountain whitefish. Poor timber harvest practices, dispersed residential septic systems, invasive species, new road construction, and culverts and stream crossings would likely diminish riparian and coniferous vegetation and increase surface disturbance, resulting in elevated water temperatures, sedimentation, and runoff. It is possible numerous ongoing (and future) native trout restoration activities in Deer Creek would be hampered by the conversion of this parcel into multiple smaller privately-owned properties.

3.6 Aesthetics and Recreation Opportunities

The subject parcel is near visible the community of Seeley Lake and visible from the Hwy 83 corridor and adjacent open forest roads. The area is especially striking in fall when the abundant larch turn golden; the local Tamarack Festival celebrates this event and draws many tourists to the Valley each year.

Plum Creek Timber has historically allowed public access to lands subject to this proposal. Public recreational opportunities include but are not limited to fishing, hunting, bird watching, hiking, horseback riding, dog-sledding, snowmobiling, and cross-country skiing.

Hunting is an especially important public use of the subject lands, and is the primary means for balancing elk and deer herds with forage resources and landowner tolerance of those species. Elk hunting is of particular importance to the local economy through sales of lodging, equipment, and guide services. The land is within Hunting District 285 (elk/deer), which supports over 15,000 elk hunter-days and over 20,000 deer hunter-days annually.

Fisheries provide significant economic benefits to the Seeley Lake economy. Combined non-resident and resident angler pressure estimates for the five major lakes comprising the Clearwater Chain-of-Lakes rose from 11,885 angler days in 1989 to 21,535 angler days in 2005.

The subject parcel includes both groomed and ungroomed snowmobile trails. The trails are maintained by the Seeley Lake Driftriders Snowmobile Club (www.driftriders.org); FWP supports this trail grooming program through the issuance of annual maintenance grants. An estimated usage level, as collected by the Forest Service in 2007, was 16,335 user trips per year from the Westside Bypass trailhead (one of several trailheads used to access the property) alone, with an average snowmobile daily travel of 174 trips.

Proposed Action: Under the proposed action, current public access and recreational opportunities would be maintained and enhanced. Protecting fish habitat in Deer Creek benefits the Clearwater River fisheries by providing nursery areas for fish that eventually migrate to the lake. Conversely, loss of fishery values and degradation of the relatively pristine nature of the riparian corridors would negatively impact the local economy.

Under this proposal, the parcel would remain open to public hunting and would continue to be managed under the standard deer/elk regulations for hunting district 285. No Marshall Creek WMA-specific permits or licenses are anticipated.

Unlike some FWP WMA's, the Marshall Creek WMA would not be routinely closed to the public at any time of the year. Roads currently designated open to wheeled-motorized use are expected to remain open and snowmobiles would be restricted to existing established open roads only between April 1st and November 30th - during the winter, there would be no restrictions.

Camping would be permitted year-round but limited to a 14-day maximum stay and fire restrictions may be implemented as wildfire risk dictates. Parking for camping or other recreation activities would be restricted to the road shoulders or established pullouts.

Recreation would be managed in accordance with applicable FWP rules and regulations, including FWP's Commercial Use Rules. Commercial outfitting would not be permitted on the parcel. FWP would install appropriate boundary and regulation signage and additional site information would be available via brochures and the FWP website to inform the public of the allowable activities within the WMA.

See the draft Management Plan (*Attachment A*) for a more detailed description of proposed recreation management of the MCWMA.

No Action Alternative: If this parcel were sold on the open market to another buyer, free public access to and through the property for existing recreation activities could be restricted or altered. Future public recreation opportunities under different ownership are difficult to analyze since future recreation management under other ownership would be at that owner(s) sole discretion.

3.6 Cultural and Historical Resources

The southwestern boundary of the proposed Marshall Creek WMA directly abuts the Confederated Salish and Kootenai Tribe's South Fork Jocko Tribal Primitive Area, which is an important cultural area for the Tribes.

The Montana State Historic Preservation Office (SHPO) completed a cultural resource file search for the property and reported that there are a few previously conducted cultural inventories completed within the project area.

Proposed Action: FWP's proposed action would ensure that lands adjacent to the South Fork Jocko Primitive Area remain open and in an undeveloped state. The proposal would not directly affect any known cultural or historical resources. However, by Montana law (22-3-433 MCA), all state agencies are required to consult with the State Historic Preservation Office on the identification and location of heritage properties on lands owned by the state that may be adversely impacted by a proposed action, i.e. timber harvest.

No Action: Sale and development of the property could degrade the natural character of lands adjacent to the South Fork Jocko Primitive Area and wilderness areas.

3.7 Community and Taxes

In 2009, Missoula County Draft Seeley Lake Regional Plan was distributed. The following two paragraphs are from that Plan and provide a helpful description of the community of Seeley Lake and its surrounding area.

Approximately 2,200 people live year-round in the upper Clearwater watershed, including the community of Seeley Lake, and that number swells to 4,000 in the summer months. Between 1990 and 2000, the year-round population of the region grew approximately 3% annually compared to approximately 2% for the county and 3% for the City of Missoula. The population of the Seeley Lake area is growing at a moderate rate similar to the rest of Missoula County and just slightly faster than the City of Missoula. New homes have been constructed in the region at a rate exceeding that of population growth, indicating the area's desirability for both primary and second homes. More than half of the houses in the Plan Area were built in the last 20 years.

The economy of Seeley Lake has been traditionally based on the extraction and processing of timber resources, recreation, and tourism. Logging and lumber mill work account for approximately 25% of the employment in the region; employment in tourism and recreation-related sectors such as accommodation and food service, retail trade, and real estate are also significant employers. The timber economy itself has become more broad-based, with timber harvest within the region generally declining.

Proposed Action: This fee title purchase by FWP would provide long term protection of wildlife habitat in the Clearwater Watershed, maintain the open space and integrity of the land, enhance public recreation opportunities, and direct management of the property toward habitat improvement and

recreational use. Existing local businesses that support snowmobiling and other recreation activities are unlikely to be affected by FWP ownership of the property because those activities would remain available to the public.

This purchase is not expected to reduce the tax revenues that Missoula County collects on this property under Montana Code 97-1-603. FWP is required by Montana Code 87-1-603 to pay "to the county a sum equal to the amount of taxes which would be payable on county assessment of the property were it taxable to a private citizen." Current taxes on this land are approximately \$495 per year based on the most recent assessment.

In conjunction with any acquisition of land, except that portion of acquisitions made with funds provided under 87-1-242(1), FWP is required to include 20% of the amount of purchase price or \$300,000, whichever is less, to be used for maintenance of FWP-owned properties, consistent with the Good Neighbor policy (87-1-209 MCA).

No Action: If the property were sold and developed, tax revenues paid to the County could be higher than current levels. Predicting the final use of the property and exact tax consequences if owned by another party(s) is difficult to assess.

4.0 RESOURCE ISSUES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

The Montana Environmental Policy Act (MEPA) provides for the identification and elimination from detailed study of issues, which are not significant or which have been covered by a prior environmental review, narrowing the discussion of these issues to a brief presentation of why they would not have a significant effect on the physical or human environment or providing a reference to their coverage elsewhere (ARM 12.2.434(d)). While these resources are important, they were either unaffected or mildly affected by the proposed action, or the effects could be adequately mitigated.

A few issues were found not to be significant to the decision and were eliminated from further detailed analysis.

4.1 Soils

A query of the U.S. Department of Agriculture's (USDA) Soil Survey database of the property identified several soil types within its boundaries ranging from various silt and gravelly loams to outcrop complexes. The predominant type was Waldbillig-Holloway gravelly silty loam. Also common are Felan and Bata-Waldbillig. The remaining soil types are present in lesser amounts. Slopes are moderate.

No new soil disturbing activities are planned for the site. The existing open road system would be maintained to ensure public safety.

4.2 Air Quality

Under either alternative, there are unlikely to be changes to the ambient air quality since FWP does not plan any construction or development activities that could affect particulate levels and air quality.

4.3 Noise and Electrical Effects

Since Plum Creek has been managing the property as open for public recreation activities, and FWP would have a similar management approach, the potential for changes in noise levels is expected to be minimal. The potential for changes in noise levels would depend on FWP approaches to managing type,

timing, and location of recreation activities. Existing electrical structures and easements would not be affected by either alternative.

4.4 Risk and Health Hazards

As part of FWP's due diligence, the Department would complete a hazardous materials survey prior to the property's acquisition. Flyover surveys have been completed, as well as ground-truthing of the flyover data and investigation of historical materials of the area.

4.5 Cumulative Impacts

Proposed Action: The proposed purchase would permanently protect and conserve significant forested habitat in the Clearwater Valley and would help ensure the continued function of important wildlife movement corridors for wide-ranging wildlife such as lynx, grizzly bear, and wolverine between the Mission Mountains and Bob Marshall/Scapegoat wildernesses. Such connectivity is essential for the recovery of threatened, endangered, and sensitive species and maintaining viability of numerous other species such as elk, black bear, and a myriad of nongame species.

Similarly, the long-term protection of Deer Creek and its tributaries would contribute to the perpetuation of native trout populations in the Clearwater River and the larger Blackfoot River watershed. Any future fisheries restoration activities initiated by FWP to improve water quality and riparian areas for native trout population would have positive benefits for all aquatic species, as well as terrestrial species.

FWP would manage the parcel in perpetuity for the benefit of terrestrial and aquatic species and manage its forested landscape such that riparian corridors are enhanced, multistoried mesic and boreal forests are recruited, forests are diversified for increased habitat values, and noxious weeds are controlled.

Maintaining year-round public access to the subject lands would continue to provide recreational opportunities (hunting, snowmobiling, fishing, etc.) for the general public and would sustain the local businesses in the Seeley Lake area that support them. Furthermore, preserving public access to and through the property would allow the public the opportunity to enjoy and recreate on adjacent State and federal lands.

Although the purchase of the property by FWP would reduce the potential for some residential development near the community of Seeley Lake, this reduction is minimal since other real estate is still available in the area for such development activities. Beyond the economic benefits the community would receive from the protection of these acres, the community's northwestern viewshed would be preserved.

No Action: If no action were taken, critical habitat important for maintaining native wildlife and fish populations in the Clearwater drainage would be vulnerable to subdivision and commercial or residential development. Habitat fragmentation, alterations, and degradation associated with development and non-sustainable natural resource extraction are major threats to native wildlife and salmonids. Crucial habitat and wildlife movement corridors for threatened, endangered, and sensitive fish and wildlife species could be at risk or compromised under this alternative.

If the property were subdivided or developed, widely divergent, uncoordinated, and inconsistent management of water resources would likely result in impacts to the watershed's outstanding natural resource values. Potential poor timber harvest practices, dispersed residential septic systems, invasive species, new road construction, and culverts and stream crossings would likely diminish riparian and coniferous vegetation and increase surface disturbance, resulting in elevated water temperatures, sedimentation, and runoff, which could have long term negative impacts on fishery populations and recruitment rates of imperiled species.

The loss of public access to the property would be a significant loss of public recreational opportunity and reduce the potential for active wildlife population management by FWP (i.e. hunting) if new owners choose to prohibit historic recreational activities (i.e. snowmobiling, hunting, camping, etc.). Traditional uses of adjacent public lands could be impacted as well, if new landowners closed their properties to the public.

5.0 NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT

Based on the significance criteria evaluated in this EA, is an EIS required? No. Based upon the above assessment, which has identified a very limited number of minor impacts from the proposed acquisition and subsequent management of the property by FWP, an EIS is not required and an environmental assessment is the appropriate level of review.

6.0 PUBLIC PARTICIPATION

6.1 Public Involvement

The public would be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- One statewide press release;
- Two legal notices in each of these newspapers: *Independent Record* (Helena), *Missoulian*, and *Seeley Swan Pathfinder*;
- One general-interest article about the proposal in the *Seeley Swan Pathfinder*;
- Direct mailing to adjacent landowners and interested parties;
- Public notice of and posting the Draft EA on the Fish, Wildlife & Parks web page:
<http://fwp.mt.gov>

Copies of this EA are available for public review at FWP Region 2 Headquarters in Missoula, at the FWP and on the FWP web site.

A public meeting is scheduled for June 18th at 7 p.m. in the Seeley Lake Community Hall (immediately north of Seeley Lake, on the east side of MT Highway 83) to provide the public a venue to submit comments and have questions answered by FWP staff. This level of public notice and participation is appropriate for a project of this scope having only limited physical and human impacts.

6.2 Offices/Programs contacted or contributing to this document:

Montana Fish, Wildlife & Parks:
Wildlife and Fisheries Division
Lands Bureau
Legal Unit
Strategic Planning & Data Services
Montana Natural Heritage Program
Montana State Historic Preservation Office
USDA Natural Resources Conservation Service

6.3 Duration of Comment Period

The public comment period would extend for thirty (30) days beginning June 1, 2012. Written comments will be accepted until 5:00 p.m. on July 2, 2012 and can be mailed to:

Region 2 FWP
Attn: Sharon Rose
3201 Spurgin Rd.
Missoula, MT 59804

Or phoned to 406-542-5540

Or emailed to: shrose@mt.gov

6.4 Anticipated Timeline of Events

Submission of Project to the FWP Commission	August 2012
Submission of Project to the Land Board	August 2012
Property Closing if Approved	October 2012

7.0 EA PREPARATION

Jay Kolbe, FWP Wildlife Biologist, Seeley Lake, MT
Ladd Knotek, Regional Fisheries Biologist, Missoula, MT
Pat Saffel, FWP Regional Fisheries Manager, Missoula, MT
Mike Thompson, FWP Regional Wildlife Manager, Missoula, MT
Candice Durran, FWP Conservation Specialist, Helena, MT

ATTACHMENTS

A. Draft Marshall Creek WMA Management Plan (separate document)

MANAGEMENT PLAN

Marshall Creek Wildlife Management Area

INTRODUCTION

Montana Fish, Wildlife and Parks (FWP) purchased fee-title ownership of lands to establish the 24,170-acre Marshall Creek Wildlife Management Area (WMA) in July, 2011. FWP is now proposing to add an adjacent 640-acre parcel in the Deer Creek drainage to the WMA during the fall of 2012. This management plan would be consistently applied to both existing WMA lands and the proposed 2012 Deer Creek addition. This Plan discloses FWP's management intent for public review and comment, and for documenting existing information for future reference. This document conveys interim management policies and strategies for the property while the long term management plan is developed.

Goals:

- Permanently protect and restore critical native fish and wildlife habitat;
- Provide perpetual public access to lands with high and diverse public recreation values;
- Maintain landscape connectivity between the Bob Marshall/Scapegoat and Mission Mountain wildland complexes;

I. ACQUISITION DATE

FWP currently owns the MCWMA. FWP would acquire the additional Deer Creek section in the fall of 2012, pending public review and approval.

II. CHAIN OF OWNERSHIP

FWP currently owns the Marshall Creek WMA in full fee title. Plum Creek Timber Company Timber is the current landowner of the additional parcel. This parcel is under contract for sale to Five Valleys Land Trust as a bridge purchaser; FWP would purchase the property from Five Valleys during fall 2012. Upon project completion, Five Valleys will retain no title to or encumbrance on any portion of the property.

III. PROPERTY DESCRIPTION

Location:

The land lies in the upper Clearwater drainage of the Blackfoot watershed, approximately 5 miles northwest of the community of Seeley Lake. The property includes portions of Deer Creek, Fawn Creek, Marshall Creek, Placid Creek and the West Fork Clearwater (Figure 1).

Acreage Deeded:

Marshall Creek WMA would encompass 24,170 contiguous acres. There are no in-holdings within the proposed WMA boundary.

Missoula County: T17N, R16W Sections 1-4, 8-21, 24, 30, and 31
T17N, R17W Section 13
T18N, R16W Sections 14-17, 20-23, 25-29, and 31-36

Acreage Leased:

There would be no leased acres associated with the WMA.

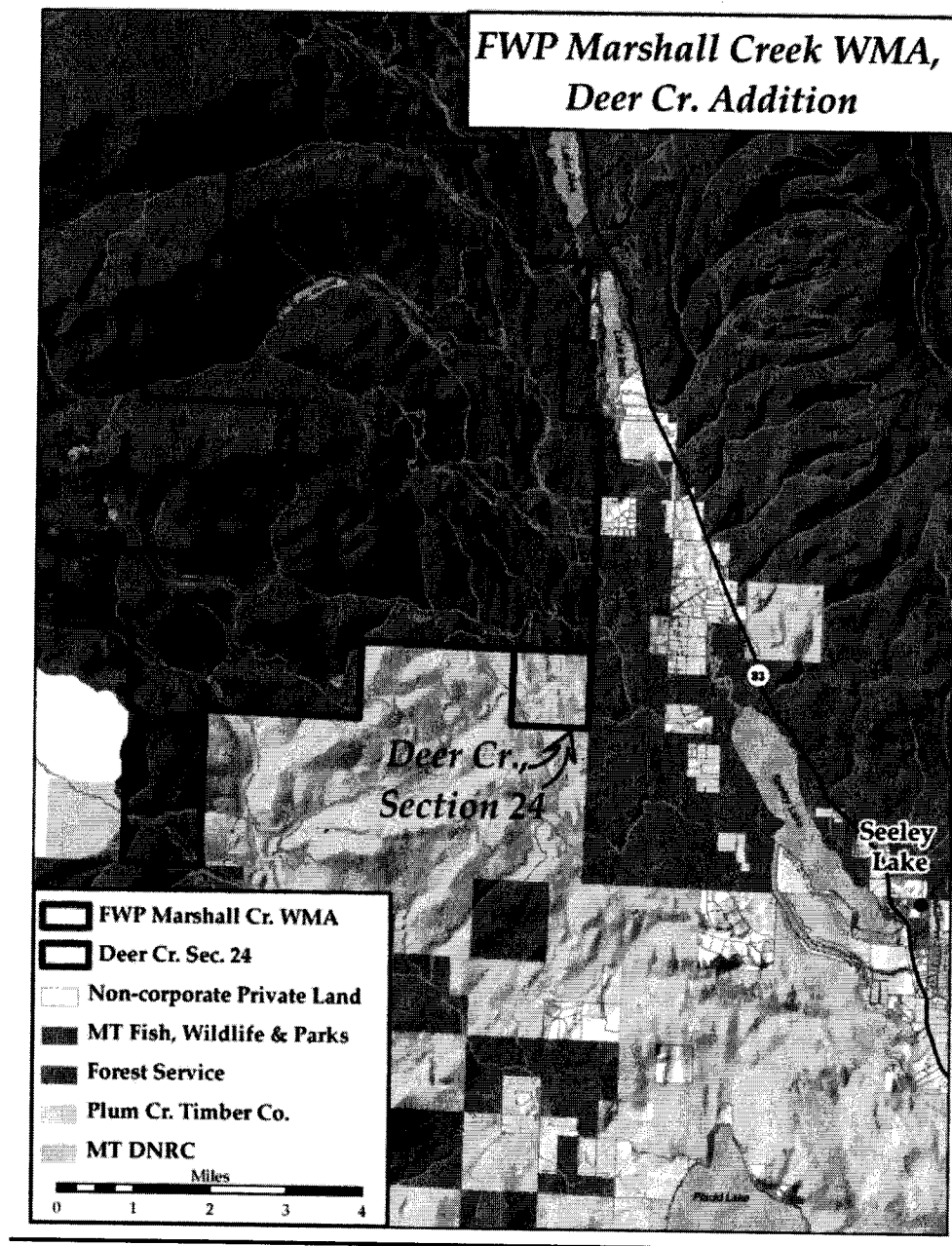


Figure 1. Location of the proposed Marshall Creek WMA within the Clearwater watershed.

IV. LANDFORMS AND DRAINAGE

The West Fork Clearwater River, Marshall Creek, Uhler Creek, Fawn Creek and Deer Creek run roughly east from their high elevation sources to their confluences with the main stem Clearwater River and lakes system. The North Fork of Placid Creek runs south to its confluence with the main stem of Placid Creek. The eighty-one acre Lake Marshall, fed by Marshall Creek, lies in the northwest portion of the property. Elevations on the property range from 2400 ft. near the lower West Fork Clearwater River to over 6600 ft. at the summit of Mt. Henry, in the center of the property. As part of a large, undeveloped forested corridor, and surrounded by large tracts of undeveloped public and private land, the property provides links the Bob Marshall/Scapegoat and Mission Mountains wildland complexes.

V. VEGETATION

The property is almost completely forested. Stands consist of boreal spruce-fir types in addition to Douglas fir and lodgepole pine types on the drier aspects. Previous owners have commercially harvested timber on the property for more than 50 years and most stands are in some stage of regeneration. In addition, 2,230 acres in the southern portion of the property burned in the Jocko Lakes wildfire of 2007. In the past, extensive re-planting occurred following harvest; western larch was preferred in both re-planting and seed-tree retention treatments. Understories tend to be complex and often consist of conifer (spp.), huckleberry (spp.), alder, false huckleberry, snowbrush, willow, serviceberry, mountain-lover, beargrass, and true grasses.

Riparian corridors are generally intact along stream courses throughout the property. Riparian plant communities typically consist of mixed conifer stands with alder and willow dominated understories.

Land Use:

Past commercial use of the property was almost exclusively for timber harvest. Livestock grazing has not occurred in recent times. The property is highly valued for recreation, including hunting, fishing, snowmobiling, hiking, camping, and sightseeing. The U.S. Forest Service (and the public wanting to access Forest Service land) uses selected roads to access its ownerships adjacent to the property. This use is managed under cost-share road agreements which would be re-negotiated with FWP following purchase.

Vegetation Condition:

Most upland stands have been subject to timber harvest within the last 50 years and are in some stage of regeneration. Riparian buffers were generally maintained along perennial streams by limiting harvest of timber. Harvest treatments of uplands varied, but included even-age harvest, shelterwood cuts, seed-tree retention harvest, and selective harvest (both helicopter and skid/cable). Re-planting and selection favored western larch; this species now predominates many stands. The property is generally very productive and regeneration is relatively rapid.

Weeds and Forest Pathogens:

Noxious weed infestations on the property are limited and primarily consist of spotted knapweed that occurs along road shoulders. Knapweed is more prevalent on the southern portion of the property that burned in 2007 but still largely associated with the road system. Missoula County

Weed District is preparing a weed management plan for the property that will help FWP direct weed treatments over time.

Bark beetle (spp.), budworm, and other forest pathogen infestations are limited on the property. Most stands are early-to-mid seral and less susceptible species such as larch, subalpine fir, spruce, and deciduous species currently dominate.

VI. EXCEPTIONAL HABITAT QUALITIES

The proposed Marshall Creek WMA property lies within the *Tier 1* (most crucial) *Blackfoot River Aquatic Focus Area* and the *Tier 1 Mission/Swan Valleys & Mountains Terrestrial Focus Area* as identified in Montana's Comprehensive Fish and Wildlife Conservation Strategy (CFWCS, 2005). The property provides habitat for over 150 native species, including > 30 CFWCS *Tier 1* and *Tier 2 Species of Greatest Conservation Need*. The mid-elevation mesic forests on the property are extremely productive and contain relatively scarce mid-elevation boreal forest types. The property is uniquely located between two of the largest wildland complexes in Montana and is mostly surrounded by protected public land; the property serves as a critical connective corridor between these large blocks of conservation land. In addition, the property itself is exceptional habitat for federally *Threatened* Canada lynx, contains significant federally designated Recovery Area for *Threatened* grizzly bear populations, and is critical spawning and rearing habitat for a unique adfluvial life form of federally *Threatened* bull trout populations. The property contains the most crucial, currently unprotected Canada lynx habitat in the western U.S. and is designated *Lynx Critical Habitat* by the USFWS.

The property lies within a matrix of protected lands managed by the U. S. Forest Service and the Confederated Salish and Kootenai Tribes. Recent research findings (wolverine, lynx, and grizzly bears in particular), FWP strategic conservation assessments, and independent movement corridor analyses have all identified the property as lying within a crucial corridor connecting the Bob Marshall/Scapegoat and Mission Mountains wildland complexes. Conservation of the property will also maintain habitat connectivity along the Mission Mountains connecting the Swan Valley, the Rattlesnake Wilderness, and Bitterroot mountain ecosystem.

Fisheries and Wildlife:

The property supports three federally ESA-listed species; grizzly bear, Canada lynx, and bull trout as well as candidate species including fisher, wolverine, and westslope cutthroat trout. Important populations of bull trout spawn in the property's streams. Many bull trout have a unique adfluvial (lake-migrant) life-history. The property also has resident and migratory populations of westslope cutthroat trout. Westslope cutthroat trout populations have high genetic purity (generally < 1% rainbow trout contribution). There are also regionally important populations of western pearlshell mussels, a Species of Concern. The property is heavily used by grizzly bears and Canada lynx.

The property provides high-quality and highly valued hunting opportunity for elk, white-tailed deer, mule deer, moose, black bear, mountain lion, wolf, furbearers, and mountain grouse. It also supports a wide array of fish and wildlife Species of Concern in Montana and the nation. A partial list of fish and wildlife species and species of concern known or expected to occur on the property are included in *Appendices A* and *B*.

VII. RECREATION

The property has historically been open to public use for hunting, fishing, camping, hiking, snowmobiling, sightseeing, and other activities and this access is highly valued. Recreational access to and through the property would be maintained and managed similar to current practices under FWP ownership.

VIII. IMPROVEMENTS AND DEVELOPMENTS

The property is without in-holdings. Several roads are subject to easements held by Plum Creek or the U. S. Forest Service. The only commercial development on the property is a single microwave tower on West Fork Point; an access easement to the tower carries with the deed but FWP does not assume a lease or liability for the tower. Many improvements (primarily associated with the road system) come with the property including roads, bridges, and water control structures.

MANAGEMENT OVERVIEW

Management of the Marshall Creek WMA will be for the enhancement and protection of native fish and wildlife populations, the habitat that supports them, and for the provision of public recreational access. The Fish and Wildlife Division will direct management at the Regional level with program direction from the Fisheries and Wildlife Bureaus. Public access will be provided to the extent that such access is compatible with vegetation, fish and wildlife goals. Vegetation management (including commercial timber harvest, prescribed fire, and riparian vegetation restoration) or other land use practices may be prescribed if needed to enhance the fish and wildlife values of the property. FWP will cooperate with adjoining landowners on noxious weed management, fence maintenance, historic and necessary road access, and other issues common to the local community. In the near term, FWP expects recreation management to maintain the *status quo* pending ongoing field assessments. FWP expects to complete a comprehensive forest inventory and forest management plan before 2014. Forest restoration and management activities will be prioritized based on identified need and available resources.

Stream and watershed restoration will be an emphasis on the property, with prioritization of projects based on ongoing inventories and the needs of native fish species. Restoration activities will primarily focus on mitigating or eliminating impacts of the extensive road network on water quality, natural stream function and riparian integrity.

I. PUBLIC ACCESS AND USE

- Marshall Creek WMA will be open to public use year round for motorized travel on open roads, snowmobiling, hunting, fishing, camping, hiking, horseback riding, mountain bicycling, and general enjoyment.
- Wheeled motorized vehicles will be restricted to the designated open road system (no wheeled motorized vehicles allowed off roads or on closed roads) year round. Currently, approximately 37 miles of the 290 miles of road on the proposed WMA are open to wheeled motorized use (Figure 2); the open road system will initially be similar to that existing at time of purchase. FWP is conducting a detailed assessment of road condition, sediment delivery and drainage, and administrative need; results of this assessment will guide future decisions about road access, removal, or upgrading. FWP will continue to maintain open road density below 1mi./1mi.² to protect grizzly bear security cover.
- Snowmobiling will be allowed throughout the WMA but will be restricted to designated open roads 4/1 – 11/30. FWP will continue to cooperate with the Seeley Lake Driftriders, the Forest Service, and Plum Creek to maintain and enhance the groomed snowmobile trail system.
- Camping will be allowed year-round but limited to a 14-day maximum stay (motorized vehicles restricted to the road shoulder or pullouts). Fire restrictions may be implemented, as wildfire-risk dictates.
- Consistent with past and current use-patterns, use of non-motorized watercraft will be emphasized on Lake Marshall.
- Firewood cutting will be restricted to downed trees that lie outside riparian areas and will be allowed by FWP-issued permit only.

- Permits will be required for use by groups of more than 15 people.
- Hunting opportunity will be managed consistent with that in the surrounding hunting districts (i.e. deer/elk HD 285); no Marshall Creek WMA-specific hunting regulations are anticipated. Fishing and trapping opportunities will be managed consistent with current Montana regulations.

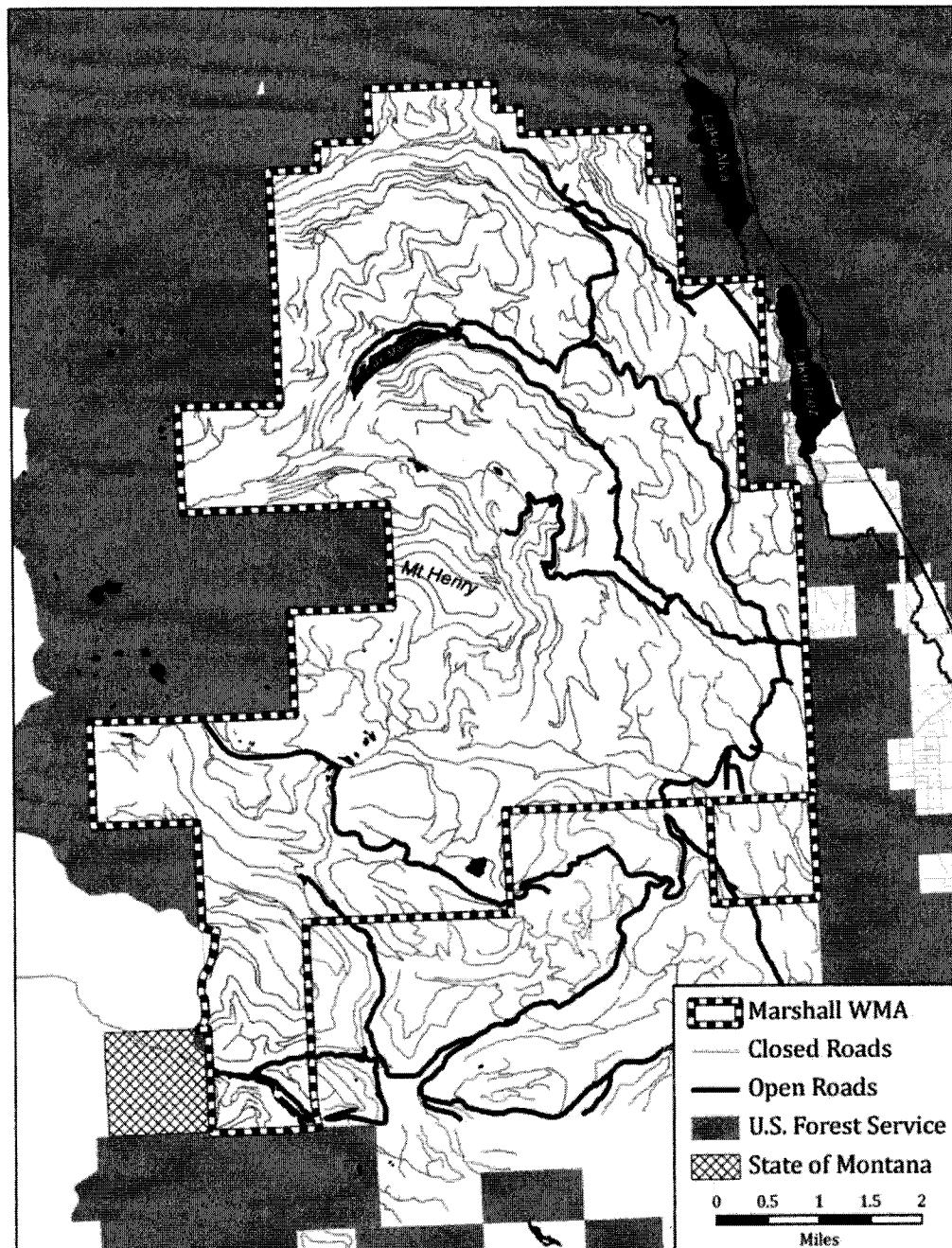


Figure 2. Roads on the Marshall Creek WMA currently open and closed to wheeled motorized travel

Issues:

- Road maintenance to reasonably support public travel and ongoing property management will constitute a significant and recurring expense. The maintenance standard for open roads will be to reasonably accommodate a 4-wheel drive vehicle with good ground clearance and to limit significant sediment delivery to streams. This standard is now generally met on the open road system, but will require regular maintenance.
- Much of the open road system has historically been managed under cost-share agreements with the U. S. Forest Service. FWP will renegotiate these agreements (which provide for shared road access and maintenance liability) following transition of ownership.
- Roads and culverts are currently being inspected for compliance with Best Management Practices (BMPs) and compatibility with fish and wildlife habitat values; any noncompliance or resource needs will be corrected on a prioritized basis.
- Maintenance of gates and barriers will be required to restrict motorized vehicle access to the closed road system.
- Signage will be required at the main access points to communicate the public access and other regulations on the WMA.
- Boundary signage will be needed to identify the WMA property line in some places.
- Hardcopy brochures and FWP website updates will need to be prepared to communicate regulations and provide basic road maps for the public.

II. FISHERIES MANAGEMENT

Fisheries management concerns on the property consist of (1) maintaining and improving the Lake Marshall sport fishery through stocking of westslope cutthroat trout, monitoring, and adjustment of harvest regulations and (2) protection and restoration of stream and riparian habitats that are vital for native trout spawning and rearing. Streams on the property provide limited sport fisheries for trout, but primarily serve as nursery areas for migratory native trout populations and other sensitive species. No fishing regulation changes are currently proposed on the property.

III. WATERSHED RESTORATION NEED

The Marshall Creek WMA contains three primary tributary stream drainages: West Fork Clearwater River, Marshall Creek and Deer Creek. Despite high road densities and disturbance associated with past land management, the abundance of bull trout, westslope cutthroat trout and other sensitive species is an indication of the high water quality and relatively intact habitat in these watersheds.

To further enhance stream habitat and aquatic populations, restoration work will focus on improving selected aspects of the road system to reduce (A) chronic sediment inputs, (B) failure risk of culverts and water management features on roads, and (C) impacts of road encroachment on stream corridors. A few locations will also require replacement or removal of stream crossings to enhance connectivity for migrating fish and promote natural stream processes. Ongoing assessments of the road system will facilitate completion of a prioritized watershed restoration projects list. These projects would be completed after acquisition as funding allows.

IV. LIVESTOCK GRAZING

The WMA property does not have a recent history of livestock grazing and no grazing leases are associated with the property. FWP will only consider allowing livestock grazing in the future if it is intended to enhance or restore habitat condition for fish and wildlife.

V. NOXIOUS WEED MANAGEMENT

Noxious weed management would be conducted in accordance with the Montana Weed Management Plan (2008). The Missoula County Weed District will conduct a field assessment of the property and work with FWP to develop a Weed Management Plan by fall 2010.

Currently, weed infestations are largely limited to road shoulders and other disturbed sites. Spotted knapweed is the predominant noxious weed species on the property. Spotted knapweed is somewhat more widespread in the southern portion of the property burned in the 2007 Jocko Lakes fire.

Any isolated patches of early invading species will be eradicated by the most efficient and effective means (e.g., hand-pulling, digging or herbicide spot treatment), depending on weed species and site limitations. Roadsides will be inspected annually for the purpose of detecting and eradicating any new weed introductions before infestations become established. FWP's priority for herbicide control of noxious weeds on the subject lands will be to spray roadsides and recent logging landings, skid trails, and other disturbed sites.

Roadside spraying and annual inspections (with spot eradications) are important strategies to prevent new weed establishments and spread. As an additional preventive measure, FWP will confine public wheeled motorized traffic to the open road system and will otherwise work to limit disturbance of the soil surface.

Livestock feed brought onto the property will be required to be certified weed-seed free.

VI. FOREST MANAGEMENT

Most of the subject parcel has been actively managed for commercial timber production during the last 50 years. Recruiting and maintaining forest stands of the highest value for fish and wildlife will guide future management of the property. Specific forest management objectives will be:

1. Enhance and restore mature forested riparian stands to secure movement corridors for wildlife, provide optimum shading of streams, woody debris recruitment to channels, and to maximize sediment filtering. The provision of cool, clean and connected stream corridors for the benefit of native fish will drive the management of forested riparian stands.
2. Recruit, enhance, and maintain multistoried, mature, mesic and boreal forest stands where they do or could occur on the WMA.
3. Maintain visual screening between existing and future forest management units adjacent to open roads.

4. Diversify the species and age composition of re-planted and regenerating stands to increase wildlife habitat values and more closely approximate the range of historic species/age stand composition.
5. Mitigate the risk of wildfire by managing fuel loads immediately adjacent to neighboring homes and established escape routes.

These management objectives will be met through a mix of both passive and active (commercial and non-commercial) management. FWP will use revenue from forest management activities for stewardship of its forested properties.

VII. FIRE PREVENTION AND SUPPRESSION

Fire suppression on the Marshall Creek WMA will fall under existing jurisdictions (currently, DNRC protection). Wildfires would be subject to immediate suppression upon detection. In an attempt to prevent human-caused ignitions, FWP and DNRC may institute temporary measures to progressively restrict open campfires and public access to the property if and as summer-fall fire danger intensifies in some years.

Prescribed fire may be used as a wildlife habitat enhancement tool and for managing fuels in the forest understory, but only with public notice and in close coordination with DNRC, the Forest Service, neighboring landowners and local fire management organizations.

VIII. GOOD NEIGHBOR

- FWP will develop and maintain effective working relationships with neighboring landowners.
- Priority will be placed on addressing and responding to matters of signage, weed control, road maintenance, fuels mitigation, recreational-use management, and coordinated wildfire protection.

IX. MAINTENANCE BUDGET

Following is a preliminary annual maintenance budget for the proposed Marshall Creek WMA:

ROADS: There are approximately 38 miles of the current open road system is in relatively good condition; we estimate open road and road closure maintenance costs to be approximately \$21,500 per year with special maintenance and improvement projects funded on a case-by-case basis. Most administratively closed roads would be managed to reduce sediment delivery to streams and to facilitate future property management activities. FWP is assessing sediment delivery mitigation needs; the extent of those needs and associated remediation costs are unknown. Projects to mitigate issues with road and water control structure condition will be prioritized and implemented following the completion of the assessment. Road closure maintenance costs would decrease yearly as property management activities were completed.

WEED CONTROL: We estimate \$7,500/year for weed control (primarily road-side herbicide treatments).

SIGNAGE: Signage costs will be highest during the first years of ownership and could exceed \$20,000. After this time, FWP would only need to maintain informational,

boundary, and road closure signs. Annual costs are expected to be less than \$2,040 per year.

TAXES: Will be approximately \$19,300/year, 5 year cost = \$96,500.

FIRE PROTECTION: Property is under MT DNRC fire protection. The annual assessment for fire protection will be approximately \$6,700/year.

Funding for ongoing operations and maintenance of the Marshall Creek WMA come from a combination of fish and wildlife license sales revenue, the Habitat Montana Program, and State funds set aside at purchase consistent with the Good Neighbor Policy (87-1-209 MCA).

APPENDIX A. Marshall Creek WMA Species List

Common Name	Scientific Name	State Rank
<i>Amphibians - 6 Species</i>		
Columbia Spotted Frog	<i>Rana luteiventris</i>	S4
Long-toed Salamander	<i>Ambystoma macrodactylum</i>	S4
Northern Leopard Frog	<i>Rana pipiens</i>	S1,S4
Pacific Treefrog	<i>Pseudacris regilla</i>	S4
Rocky Mountain Tailed Frog	<i>Ascaphus montanus</i>	S4
Western Toad	<i>Bufo boreas</i>	S2
<i>Birds - 183 Species</i>		
American Bittern	<i>Botaurus lentiginosus</i>	S3B
American Coot	<i>Fulica americana</i>	S5B
American Crow	<i>Corvus brachyrhynchos</i>	S5B
American Dipper	<i>Cinclus mexicanus</i>	S5
American Goldfinch	<i>Spinus tristis</i>	S5B
American Kestrel	<i>Falco sparverius</i>	S5B
American Pipit	<i>Anthus rubescens</i>	S4B
American Redstart	<i>Setophaga ruticilla</i>	S5B
American Robin	<i>Turdus migratorius</i>	S5B
American Three-toed Woodpecker	<i>Picoides dorsalis</i>	S4
American Wigeon	<i>Anas americana</i>	S5B
Bald Eagle	<i>Haliaeetus leucocephalus</i>	S3
Bank Swallow	<i>Riparia riparia</i>	S5B
Barn Swallow	<i>Hirundo rustica</i>	S5B
Barred Owl	<i>Strix varia</i>	S4
Barrow's Goldeneye	<i>Bucephala islandica</i>	S4
Belted Kingfisher	<i>Megaceryle alcyon</i>	S5B
Black-backed Woodpecker	<i>Picoides arcticus</i>	S3
Black-billed Magpie	<i>Pica hudsonia</i>	S5
Black-capped Chickadee	<i>Poecile atricapillus</i>	S5
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	S4B
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	S5B
Black Swift	<i>Cypseloides niger</i>	S1B
Blue-winged Teal	<i>Anas discors</i>	S5B
Bobolink	<i>Dolichonyx oryzivorus</i>	S3B
Bohemian Waxwing	<i>Bombycilla garrulus</i>	S5N
Boreal Chickadee	<i>Poecile hudsonicus</i>	S3
Boreal Owl	<i>Aegolius funereus</i>	S4
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	S5B
Brown Creeper	<i>Certhia americana</i>	S3

Brown-headed Cowbird	<i>Molothrus ater</i>	S5B
Bufflehead	<i>Bucephala albeola</i>	S5B
Bullock's Oriole	<i>Icterus bullockii</i>	S5B
Calliope Hummingbird	<i>Stellula calliope</i>	S5B
Canada Goose	<i>Branta canadensis</i>	S5B
Canvasback	<i>Aythya valisineria</i>	S5B
Canyon Wren	<i>Catherpes mexicanus</i>	S4
Cassin's Finch	<i>Carpodacus cassinii</i>	S3
Cedar Waxwing	<i>Bombycilla cedrorum</i>	S5B
Chestnut-backed Chickadee	<i>Poecile rufescens</i>	S4
Chipping Sparrow	<i>Spizella passerina</i>	S5B
Cinnamon Teal	<i>Anas cyanoptera</i>	S5B
Clark's Nutcracker	<i>Nucifraga columbiana</i>	S3
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	S5B
Common Goldeneye	<i>Bucephala clangula</i>	S5
Common Loon	<i>Gavia immer</i>	S3B
Common Merganser	<i>Mergus merganser</i>	S5B
Common Nighthawk	<i>Chordeiles minor</i>	S5B
Common Raven	<i>Corvus corax</i>	S5
Common Redpoll	<i>Acanthis flammea</i>	S5N
Common Yellowthroat	<i>Geothlypis trichas</i>	S5B
Cooper's Hawk	<i>Accipiter cooperii</i>	S4B
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>	S4B
Dark-eyed Junco	<i>Junco hyemalis</i>	S5B
Downy Woodpecker	<i>Picoides pubescens</i>	S5
Dusky Flycatcher	<i>Empidonax oberholseri</i>	S5B
Dusky Grouse	<i>Dendragapus obscurus</i>	S4
Eared Grebe	<i>Podiceps nigricollis</i>	S5B
Eastern Kingbird	<i>Tyrannus tyrannus</i>	S5B
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	S5
Flammulated Owl	<i>Otus flammeolus</i>	S3B
Fox Sparrow	<i>Passerella iliaca</i>	S5B
Gadwall	<i>Anas strepera</i>	S5B
Golden-crowned Kinglet	<i>Regulus satrapa</i>	S5
Golden Eagle	<i>Aquila chrysaetos</i>	S3
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	S3B
Gray Catbird	<i>Dumetella carolinensis</i>	S5B
Gray Jay	<i>Perisoreus canadensis</i>	S5
Great Blue Heron	<i>Ardea herodias</i>	S3
Great Gray Owl	<i>Strix nebulosa</i>	S3
Great Horned Owl	<i>Bubo virginianus</i>	S5

Green-winged Teal	<i>Anas crecca</i>	S5B
Harlequin Duck	<i>Histrionicus histrionicus</i>	S2B
Hairy Woodpecker	<i>Picoides villosus</i>	S5
Hammond's Flycatcher	<i>Empidonax hammondi</i>	S4B
Hermit Thrush	<i>Catharus guttatus</i>	S5B
Hooded Merganser	<i>Lophodytes cucullatus</i>	S4
Horned Grebe	<i>Podiceps auritus</i>	S3B
Horned Lark	<i>Eremophila alpestris</i>	S5
House Finch	<i>Carpodacus mexicanus</i>	S5
House Wren	<i>Troglodytes aedon</i>	S5B
Killdeer	<i>Charadrius vociferus</i>	S5B
Lazuli Bunting	<i>Passerina amoena</i>	S4B
Least Flycatcher	<i>Empidonax minimus</i>	S5B
Lesser Scaup	<i>Aythya affinis</i>	S5B
Lewis's Woodpecker	<i>Melanerpes lewis</i>	S2B
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	S5B
Long-billed Curlew	<i>Numenius americanus</i>	S3B
Long-eared Owl	<i>Asio otus</i>	S5
MacGillivray's Warbler	<i>Oporornis tolmiei</i>	S5B
Mallard	<i>Anas platyrhynchos</i>	S5
Marsh Wren	<i>Cistothorus palustris</i>	S5B
Merlin	<i>Falco columbarius</i>	S4
Mountain Bluebird	<i>Sialia currucoides</i>	S5B
Mountain Chickadee	<i>Poecile gambeli</i>	S5
Mourning Dove	<i>Zenaida macroura</i>	S5B
Nashville Warbler	<i>Vermivora ruficapilla</i>	S5B
Northern Flicker	<i>Colaptes auratus</i>	S5
Northern Goshawk	<i>Accipiter gentilis</i>	S3
Northern Harrier	<i>Circus cyaneus</i>	S4B
Northern Pintail	<i>Anas acuta</i>	S5B
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>	S4
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	S5B
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	S4
Northern Shoveler	<i>Anas clypeata</i>	S5B
Northern Shrike	<i>Lanius excubitor</i>	S5N
Northern Waterthrush	<i>Seiurus noveboracensis</i>	S5B
Olive-sided Flycatcher	<i>Contopus cooperi</i>	S4B
Orange-crowned Warbler	<i>Vermivora celata</i>	S5B
Osprey	<i>Pandion haliaetus</i>	S5B
Ovenbird	<i>Seiurus aurocapilla</i>	S4B
Peregrine Falcon	<i>Falco peregrinus</i>	S3

Pied-billed Grebe	<i>Podilymbus podiceps</i>	S5B
Pileated Woodpecker	<i>Dryocopus pileatus</i>	S3
Pine Grosbeak	<i>Pinicola enucleator</i>	S5
Pine Siskin	<i>Spinus pinus</i>	S5
Prairie Falcon	<i>Falco mexicanus</i>	S4
Pygmy Nuthatch	<i>Sitta pygmaea</i>	S4
Red-breasted Nuthatch	<i>Sitta canadensis</i>	S5
Red Crossbill	<i>Loxia curvirostra</i>	S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	S4B
Redhead	<i>Aythya americana</i>	S5B
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	S3B
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	S4B
Red-necked Grebe	<i>Podiceps grisegena</i>	S4B
Red-tailed Hawk	<i>Buteo jamaicensis</i>	S5B
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	S5B
Ring-necked Duck	<i>Aythya collaris</i>	S5B
Rock Wren	<i>Salpinctes obsoletus</i>	S5B
Ross's Goose	<i>Chen rossii</i>	S4N
Rough-legged Hawk	<i>Buteo lagopus</i>	S5N
Ruby-crowned Kinglet	<i>Regulus calendula</i>	S5B
Rufous Hummingbird	<i>Selasphorus rufus</i>	S4B
Ruddy Duck	<i>Oxyura jamaicensis</i>	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	S4
Savannah Sparrow	<i>Passerculus sandwichensis</i>	S5B
Say's Phoebe	<i>Sayornis saya</i>	S5B
Sharp-tailed Grouse (Columbian)	<i>Tympanuchus phasianellus columbianus</i>	S1
Sharp-shinned Hawk	<i>Accipiter striatus</i>	S4B
Short-eared Owl	<i>Asio flammeus</i>	S4
Snow Bunting	<i>Plectrophenax nivalis</i>	S5N
Snow Goose	<i>Chen caerulescens</i>	S4N
Solitary Vireo	<i>Vireo solitarius</i>	SNR
Song Sparrow	<i>Melospiza melodia</i>	S5B
Sora	<i>Porzana carolina</i>	S5B
Spotted Sandpiper	<i>Actitis macularius</i>	S5B
Spotted Towhee	<i>Pipilo maculatus</i>	S5B
Spruce Grouse	<i>Falci pennis canadensis</i>	S4
Steller's Jay	<i>Cyanocitta stelleri</i>	S5
Swainson's Hawk	<i>Buteo swainsoni</i>	S4B
Swainson's Thrush	<i>Catharus ustulatus</i>	S5B
Townsend's Solitaire	<i>Myadestes townsendi</i>	S5
Townsend's Warbler	<i>Dendroica townsendi</i>	S5B

Tree Swallow	<i>Tachycineta bicolor</i>	S5B
Trumpeter Swan	<i>Cygnus buccinator</i>	S3
Turkey Vulture	<i>Cathartes aura</i>	S4B
Varied Thrush	<i>Ixoreus naevius</i>	S5B
Vaux's Swift	<i>Chaetura vauxi</i>	S4B
Veery	<i>Catharus fuscescens</i>	S3B
Vesper Sparrow	<i>Poocetes gramineus</i>	S5B
Violet-green Swallow	<i>Tachycineta thalassina</i>	S5B
Warbling Vireo	<i>Vireo gilvus</i>	S5B
Western Bluebird	<i>Sialia mexicana</i>	S4B
Western Grebe	<i>Aechmophorus occidentalis</i>	S4B
Western Kingbird	<i>Tyrannus verticalis</i>	S5B
Western Meadowlark	<i>Sturnella neglecta</i>	S5B
Western Screech-Owl	<i>Megascops kennicottii</i>	S3S4
Western Tanager	<i>Piranga ludoviciana</i>	S5B
Western Wood-Pewee	<i>Contopus sordidulus</i>	S5B
White-breasted Nuthatch	<i>Sitta carolinensis</i>	S4
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	S5B
White-tailed Ptarmigan	<i>Lagopus leucura</i>	S3
White-throated Swift	<i>Aeronautes saxatalis</i>	S5B
White-winged Crossbill	<i>Loxia leucoptera</i>	S4
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	S4B
Willow Flycatcher	<i>Empidonax traillii</i>	S4B
Wilson's Phalarope	<i>Phalaropus tricolor</i>	S4B
Wilson's Warbler	<i>Wilsonia pusilla</i>	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	S3
Wood Duck	<i>Aix sponsa</i>	S5B
Yellow-breasted Chat	<i>Icteria virens</i>	S5B
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	S5B
Yellow-rumped Warbler	<i>Dendroica coronata</i>	S5B
Yellow Warbler	<i>Dendroica petechia</i>	S5B
Mammals - 64 Species		
American Mink	<i>Mustela vison</i>	S5
Badger	<i>Taxidea taxus</i>	S4
Beaver	<i>Castor canadensis</i>	S5
Big Brown Bat	<i>Eptesicus fuscus</i>	S4
Black Bear	<i>Ursus americanus</i>	S5
Bobcat	<i>Lynx rufus</i>	S5
Bushy-tailed Woodrat	<i>Neotoma cinerea</i>	S5
California Myotis	<i>Myotis californicus</i>	S4
Canada Lynx	<i>Lynx canadensis</i>	S3

Columbian Ground Squirrel	<i>Spermophilus columbianus</i>	S5
Coyote	<i>Canis latrans</i>	S5
Deer Mouse	<i>Peromyscus maniculatus</i>	S5
Dusky or Montane Shrew	<i>Sorex monticolus</i>	S5
Elk or Wapiti	<i>Cervus canadensis</i>	S5
Fisher	<i>Martes pennanti</i>	S3
Fringed Myotis	<i>Myotis thysanodes</i>	S3
Golden-mantled Ground Squirrel	<i>Spermophilus lateralis</i>	S4
Gray Wolf	<i>Canis lupus</i>	S4
Grizzly Bear	<i>Ursus arctos</i>	S2S3
Heather Vole	<i>Phenacomys intermedius</i>	S4
Hoary Bat	<i>Lasiurus cinereus</i>	S3
Hoary Marmot	<i>Marmota caligata</i>	S3S4
Little Brown Myotis	<i>Myotis lucifugus</i>	S4
Long-eared Myotis	<i>Myotis evotis</i>	S4
Long-legged Myotis	<i>Myotis volans</i>	S4
Long-tailed Vole	<i>Microtus longicaudus</i>	S4
Long-tailed Weasel	<i>Mustela frenata</i>	S5
Marten	<i>Martes americana</i>	S4
Masked Shrew	<i>Sorex cinereus</i>	S5
Meadow Vole	<i>Microtus pennsylvanicus</i>	S5
Montane Vole	<i>Microtus montanus</i>	S5
Moose	<i>Alces americanus</i>	S5
Mountain Cottontail	<i>Sylvilagus nuttallii</i>	S4
Mountain Goat	<i>Oreamnos americanus</i>	S4
Mountain Lion	<i>Puma concolor</i>	S4
Mule Deer	<i>Odocoileus hemionus</i>	S5
Muskrat	<i>Ondatra zibethicus</i>	S5
Northern Bog Lemming	<i>Synaptomys borealis</i>	S2
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	S4
Northern Pocket Gopher	<i>Thomomys talpoides</i>	S5
Northern River Otter	<i>Lontra canadensis</i>	S4
Pika	<i>Ochotona princeps</i>	S4
Porcupine	<i>Erethizon dorsatum</i>	S4
Raccoon	<i>Procyon lotor</i>	S5
Red Fox	<i>Vulpes vulpes</i>	S5
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	S5
Red-tailed Chipmunk	<i>Tamias ruficaudus</i>	S4
Short-tailed Weasel	<i>Mustela erminea</i>	S5
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	S4
Snowshoe Hare	<i>Lepus americanus</i>	S4

Southern Red-backed Vole	<i>Myodes gapperi</i>	S4
Striped Skunk	<i>Mephitis mephitis</i>	S5
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	S2
Vagrant Shrew	<i>Sorex vagrans</i>	S4
Water Shrew	<i>Sorex palustris</i>	S4
Water Vole	<i>Microtus richardsoni</i>	S4
Western Jumping Mouse	<i>Zapus princeps</i>	S4
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	S4
White-tailed Deer	<i>Odocoileus virginianus</i>	S5
White-tailed Jack Rabbit	<i>Lepus townsendii</i>	S4
Wolverine	<i>Gulo gulo</i>	S3
Yellow-bellied Marmot	<i>Marmota flaviventris</i>	S4
Yellow-pine Chipmunk	<i>Tamias amoenus</i>	S5
Yuma Myotis	<i>Myotis yumanensis</i>	S3S4
Reptiles - 9 Species		
Common Gartersnake	<i>Thamnophis sirtalis</i>	S4
Eastern Racer	<i>Coluber constrictor</i>	S5
Gophersnake	<i>Pituophis catenifer</i>	S5
Northern Alligator Lizard	<i>Elgaria coerulea</i>	S3
Painted Turtle	<i>Chrysemys picta</i>	S4
Prairie Rattlesnake	<i>Crotalus viridis</i>	S4
Rubber Boa	<i>Charina bottae</i>	S4
Terrestrial Gartersnake	<i>Thamnophis elegans</i>	S5
Western Skink	<i>Eumeces skiltonianus</i>	S3

APPENDIX B. Marshall WMA Species of Concern

Common Name	Habitat	SOC	CFWCS Tier	Comments
<i>Amphibian (1)</i>				
Western Toad <i>Bufo boreas</i>	Wetlands, lakes, floodplain pools	SOC	1	Suitable aquatic and upland habitats for this species.
<i>Birds (21)</i>				
American Bittern <i>Botaurus lentiginosus</i>	Wetlands	SOC	2	Found in wetlands along the Clearwater River.
Bald Eagle <i>Haliaeetus leucocephalus</i>	Riparian forests	SOC	1	Nests at Lake Alva. Uses the Clearwater River and other lakes for foraging. Potential winter roosting sites in conifer forest stands.
Black Swift <i>Cypseloides niger</i>	Cliffs, waterfalls, forages over wetland and riparian habitats	SOC	2	Possible foraging habitat in area.
Black-backed Woodpecker <i>Picoides articus</i>	Conifer forest burns	SOC	1	Found in burned forest nearby, will use the project area after fire.
Boreal Chickadee <i>Poecile gambeli</i>	Spruce fir forest	SOC	2	Found in low numbers in the Seeley-Swan valley.
Cassin's Finch <i>Carpodacus cassinii</i>	Conifer Forest	SOC	2	Verified near area during bird point counts.
Clark's Nutcracker <i>Nucifraga columbiana</i>	Conifer forests	SOC	3	Uses conifer forests in the area, newly-added to the Montana SOC list.
Common Loon <i>Gavia immer</i>	Mountain lakes with emergent vegetation	SOC	1	Lake Marshall used for foraging, Lakes Alva and Inez used for nesting.
Flammulated Owl <i>Otus flammeolus</i>	Conifer forests	SOC	1	Uses conifer forests in the area for nesting and foraging.
Golden Eagle <i>Aquila chrysaetos</i>	Cliffs, open forests, grasslands, subalpine	SOC	2	Suitable nesting and foraging habitat, not verified in area.
Great Blue Heron <i>Ardea herodias</i>	Wetlands, riparian	SOC	3	Nesting rookery at Lake Inez, foraging habitat in area
Great Gray Owl <i>Strix nebulosa</i>	Conifer forests	SOC	1	Species documented on the project area, nearest documented nest is 13 miles NE.
Hooded Merganser <i>Lophodytes cucullatus</i>	Riparian forests	PSOC	2	Found along Clearwater River
Northern Goshawk <i>Accipiter gentiles</i>	Mixed conifer forest	SOC	2	Uses conifer forests in the area for nesting and foraging.
Olive-sided Flycatcher <i>Contopus cooperi</i>	Early seral forest/shrub patches, burned forest		1	Documented in suitable habitat throughout the area.
Peregrine Falcon <i>Falco peregrinus</i>	Cliffs (nesting), riparian forests & wetlands (foraging)	SOC	2	Riparian and wetland habitats potentially used for foraging by migrating birds.

Common Name	Habitat	SOC	CFWCS Tier	Comments
Pileated Woodpecker <i>Dryocopus pileatus</i>	Conifer forests with large trees	SOC	2	Verified on the area, suitable habitat.
Trumpeter Swan <i>Cygnus buccinator</i>	Shallow lakes with submerged and emergent vegetation and low disturbance levels.	SOC	1	Reintroduction programs in nearby Mission and Blackfoot Valleys, habitats for this species found primarily along the Clearwater River.
Veery <i>Catharus fuscus</i>	Riparian	SOC	2	Found along the Clearwater River.
Western Screech-Owl <i>Megascops kennicottii</i>	Riparian forests	PSOC	3	Potential habitat, not verified.
White-tailed Ptarmigan <i>Lagopus leucura</i>	Alpine	SOC	2	Present in Swan Mountains and probably present in Mission mountains.
<i>Fish (2)</i>				
Bull Trout <i>Salvelinus confluentus</i>	Mountain streams, rivers, lakes	SOC	1	Project area is the key spawning and rearing area for adfluvial population in Clearwater drainage.
Westslope Cutthroat Trout <i>Oncorhynchus clarkii lewisi</i>	Mountain streams, rivers, lakes	SOC	1	Abundant populations in project area with both stream-resident and migratory components, and high genetic purity.
<i>Mammals (12)</i>				
Canada Lynx <i>Lynx Canadensis</i>	Subalpine conifer forests	SOC	1	The Clearwater Lands Project, and the project parcel in particular, contains some of the highest quality, currently unprotected, Canada lynx habitat in the western U.S.
Fisher <i>Martes pennanti</i>	Mixed conifer forests	SOC	2	Fisher are resident within the proposed WMA.
Fringed Myotis <i>Myotis thysanodes</i>	Riparian and dry mixed conifer forests	SOC	2	Potential habitat, but insufficient surveys to determine presence or absence in project area.
Gray Wolf <i>Canis lupus</i>	Generalist	SOC	1	Commonly observed within the proposed WMA.
Grizzly Bear <i>Ursus arctos horribilis</i>	Generalist	SOC	1	The subject parcel provides important post-emergence foraging habitat, contains federally designated Recovery Area, is adjacent to modeled denning habitat, and serves as a critical movement corridor.
Hoary Bat <i>Lasiurus cinereus</i>	Riparian and conifer forests	SOC	2	Uses mature trees (conifer or broadleaf) for roosting. Forages over forest canopy, wetlands, and water.
Hoary Marmot <i>Marmota caligata</i>	Alpine	PSOC	1	Found in Mission Mountains, not yet verified on the property.

Common Name	Habitat	SOC	CFWCS Tier	Comments
Northern Bog Lemming <i>Synaptomys borealis</i>	Wetlands (peatlands)	SOC	1	Potential habitat present, wetlands in area have not yet been surveyed for the species.
Silver-haired Bat <i>Lasionycteris noctivagans</i>	Conifer and riparian forests	PSOC	2	Suitable habitat, presence not yet verified.
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	Caves and mines (roosting), riparian, wetlands, forests (foraging)	SOC	1	Project area has foraging habitat, but no known roosting habitat.
Wolverine <i>Gulo gulo</i>	Conifer forests	SOC	2	Species routinely detected on the property and the project area falls within a critical habitat linkage zone between the Mission Mountains and Bob Marshall Wilderness Complex.
Yuma Myotis <i>Myotis yumaensis</i>	Riparian and mixed forests near water	PSOC	2	Potential habitat, not verified (difficult to identify).
<i>Mollusk (1)</i>				
Western Pearlshell <i>Margaritifera falcata</i>	Mountain streams/rivers	SOC	1	Recent surveys indicate that Marshall Creek and the Clearwater River provide some of the highest quality western pearlshell habitat in Montana.